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NEWS 7 APR 28 CAS patent authority coverage expanded
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9 APR 28 Limits doubled for structure searching in CAS
                 REGISTRY
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NEWS 11 MAY 11 STN on the Web enhanced
NEWS 12 MAY 11
                 BEILSTEIN substance information now available on
                 STN Easy
NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased
                 limits for exact sequence match searches and
                 introduction of free HIT display format
NEWS 14
         MAY 15
                 INPADOCDB and INPAFAMDB enhanced with Chinese legal
                 status data
NEWS 15
         MAY 28 CAS databases on STN enhanced with NANO super role in
                 records back to 1992
        JUN 01 CAS REGISTRY Source of Registration (SR) searching
NEWS 16
                 enhanced on STN
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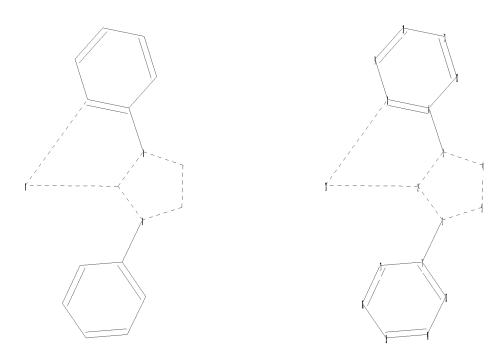
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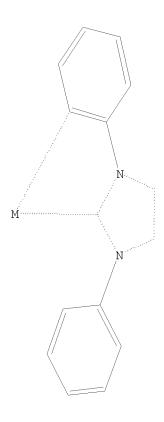
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds:
1-7
ring bonds:
1-2 1-5 2-3 2-18 3-4 3-6 4-5 6-8 6-12 7-13 7-17 8-9 8-18 9-10 10-11
11-12 13-14 14-15 15-16 16-17
exact/norm bonds:
1-2 1-5 1-7 2-3 2-18 3-4 3-6 4-5 8-18
normalized bonds:
6-8 6-12 7-13 7-17 8-9 9-10 10-11 11-12 13-14 14-15 15-16 16-17

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom

L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> 11 SAMPLE SEARCH INITIATED 19:35:07 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 3677 TO ITERATE

54.4% PROCESSED 2000 ITERATIONS 9 ANSWERS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 69903 TO 77177

PROJECTED ANSWERS: 86 TO 574

L2 9 SEA SSS SAM L1

=> 11 full FULL SEARCH INITIATED 19:35:09 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 73297 TO ITERATE

100.0% PROCESSED 73297 ITERATIONS 765 ANSWERS SEARCH TIME: 00.00.02

L3 765 SEA SSS FUL L1

=> file caplus

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FULL ESTIMATED COST

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FILE COVERS 1907 - 16 Jun 2009 VOL 150 ISS 25 (20090615/ED) FILE LAST UPDATED: 15 Jun 2009 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

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=> 13

L445 L3

=> d ibib abs hitstr 1-45

ANSWER 1 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:555826 CAPLUS

DOCUMENT NUMBER: 150:526744

TITLE: Complexes with tridentate ligands

INVENTOR(S): Walters, Robert W.; Tsai, Jui-Yi; MacKenzie, Peter

Borden; Beers, Scott

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 143pp., Cont.-in-part of U.S.

Ser. No. 973,265.

CODEN: USXXCO

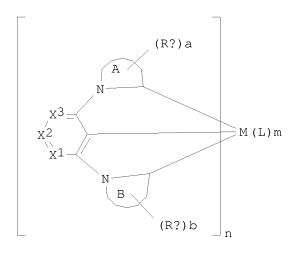
DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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US 20090115322
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                         Α1
                                                                   20080929
     US 20090092854
                          Α1
                                20090409
                                            US 2007-973265
                                                                   20071004
     WO 2009046266
                         Α1
                                20090409
                                            WO 2008-US78697
                                                                   20081003
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             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                            US 2007-973265
                                                                A2 20071004
                                            US 2008-240584
                                                                A 20080929
GΙ
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The present invention relates to organic light emitting devices (OLEDs), and more specifically to phosphorescent organic materials used in such devices. More specifically, the present invention relates to emissive phosphorescent material I [M = 2nd or 3rd row transition metal; L -ancilliary ligand; ringA = 8- to 12-membered bicyclic ring having 3 - 6 heteratoms, 11- to 18-membered tricyclic having 3 - 6 heteratoms, 11- to 14-membered fused tricyclic, or 14- to 18-membered fused tetracyclic; RA = alkyl, alkenyl, alkynyl, aralkyl, O-R', N(R')2, SR', C(O)R', C(O)NR', CN, CF3, NO2, SO2R', SOR', SO3R', Si(R'')3, halo, aryl or heteroaryl; a = 0 - 4; ring B = 5- or 6-membered ring, 8- to 12-nmembered bicyclic, 11- to 18-membered tricyclic, 11- to 18-membered fused tricyclic, or 14- to 18-membered fused tetracyclic] which comprise at least one tridentate ligand bound to a metal center, wherein at least one of the bonds to the tridentate ligand is a C-metal bond.

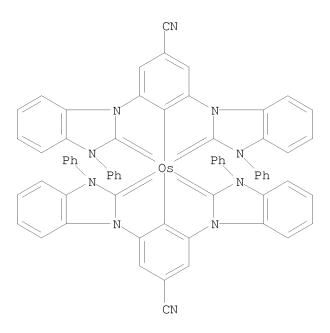
Ι

IT 1141494-94-1P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)

(complexes with tridentate ligands)

RN 1141494-94-1 CAPLUS

CN INDEX NAME NOT YET ASSIGNED



L4 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:487913 CAPLUS

DOCUMENT NUMBER: 150:472908

TITLE: Transition metal cyclometalated complexes with

chelating bidentate N-heterocyclic carbene-heterocycle

ligands as light-emitting materials for organic

light-emitting devices (OLEDs)

INVENTOR(S):
Molt, Oliver; Lennartz, Christian; Fuchs, Evelyn;

Kahle, Klaus; Langer, Nicolle; Schildknecht, Christian; Rudolph, Jens; Wagenblast, Gerhard;

Watanabe, Soichi

PATENT ASSIGNEE(S): Basf Se, Germany

SOURCE: PCT Int. Appl., 70pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE		APPLICATION NO.						DATE						
WO 2009050281				A1	A1 20090423			WO 2008-EP64064						20081017				
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			CA,	CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,
			FΙ,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,
			KG,	KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,
			ME,	MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,
			PL,	PT.	RO,	RS.	RU,	SC,	SD,	SE,	SG.	SK.	SL.	SM.	ST.	SV.	SY.	TJ.

TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO::

EP 2007-118675
A 20071017
EP 2008-153303
A 20080326

OTHER SOURCE(S): MARPAT 150:472908

AΒ Transition metal complexes I [1, (NHC)MLmZn, M = Group IB, IIB metal, transition metal, lanthanide, preferably M = Ir, Os, Pt; L = mono- or bidentate neutral ligand; Z = mono- or dianionic ligand; X = C, N, preferably X = N, R1 absent; when X = C, R1 = F, CN, C1-20 alkoxy, alkylthio, C6-30 aryloxy, arylthio, C6-30 (hetero)aryl; R2 = organyl, A, D, E, G, J, K, Q, T = N, CH, C-organyl, two adjacent ring atoms may form a 3-6-membered cycle; x > 1; m, n = 0, ≥ 1], useful as stable and efficient light-emitting materials for manufacturing of organic light-emitting devices, were prepared by metalation of the azolium carbene precursors [NHC-H]+Y- (2·Y, same A, D, E, G, J, K, Q, T, R1, R2; Y = halide, pseudohalide, BF4-, BPh2-, PF6-, AsF6-, SbF6-), preferably in one-pot process with a metal complex and ligands L and HZ, preferably by reaction of [NHC-H]+Y- with [Ir2(μ -Cl)2(η 4-1,5-cod)2]. In an example, 11.0 mmol of the ligand iodide precursor, 1-methyl-1, 2, 4-triazolo [4, 3-f] phenanthridinium iodide (2a·I; X = N, R1 absent, R2 = Me, A = D = E = G = J = K = Q = T = CH) was reacted with 5.5 mmol of Ag2O in 200 mL of MeOH for 16 h at 20° under argon, giving 94% of the silver carbene (NHC)AgI (3a), which was reacted with $[Ir2(\mu-C1)2(\eta 4-1,5-cod)2]$ to give the mer-(NHC)3Ir (1a, X = N, R1 absent, R2 = Me, A = D = E = J = K = Q = T = CH, G = C; x = 3, m = n = 0) with 75% yield. In another example, the complex 1a exhibited blue emission at 448, 481 nm upon excitation at 325 nm by HeCd laser; the light-emitting layer made with 1a as an active component exhibited electroluminescence at 452, 479 nm, efficiency of 13.4 cd/A, quantum yield of 7.2% and maximum brightness of 1300 cd/m2. 888725-36-8 ΙT

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (preparation and electroluminescence of iridium cyclometalated annelated azolylidene N-heterocyclic carbene chelate complexes, light-emitting

layers and devices) RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

Ph Ir N N Ph

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:422572 CAPLUS

DOCUMENT NUMBER: 150:434745

TITLE: A light emitting device using a phosphor comprising

complexes with tridentate ligands

INVENTOR(S): Walters, Robert W.; Tsai, Jui-Yi; MacKenzie, Peter

Borden; Beers, Scott

PATENT ASSIGNEE(S): Entire Interest, USA

SOURCE: U.S. Pat. Appl. Publ., 134pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE		
US 20090092854	A1 20090409	US 2007-973265	20071004		
US 20090115322	A1 20090507	US 2008-240584	20080929		
WO 2009046266	A1 20090409	WO 2008-US78697	20081003		
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FI, GB, GD,	GE, GH, GM, GT,		IS, JP, KE,		
KG, KM, KN,	KP, KR, KZ, LA,		LY, MA, MD,		
ME, MG, MK,	MN, MW, MX, MY,		OM, PG, PH,		
PL, PT, RO,	RS, RU, SC, SD,		SV, SY, TJ,		
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TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 2007-973265 A2 20071004 US 2008-240584 A 20080929

AB A light emitting device using a phosphor comprising complexes with tridentate ligands is described, where the emissive phosphorescent material comprises at least one tridentate ligand bound to a metal center, and where at least one of the bonds to the tridentate ligand is a carbon-metal bond.

IT 1141494-61-2 1141494-83-8 1141494-84-9 1141494-94-1

RL: TEM (Technical or engineered material use); USES (Uses) (light emitting devices using phosphor comprising complexes with tridentate ligands)

RN 1141494-61-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 1141494-83-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 1141494-84-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 1141494-94-1 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

L4 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:422571 CAPLUS

DOCUMENT NUMBER: 150:434744

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A light emitting device using a phosphor comprising
TITLE:
                               complexes with tridentate ligands
                               Walters, Robert W.; Tsai, Jui-Yi; MacKenzie, Peter
INVENTOR(S):
                               Borden; Beers, Scott A.
PATENT ASSIGNEE(S):
                               Universal Display Corporation, USA
SOURCE:
                               PCT Int. Appl., 187pp.
                               CODEN: PIXXD2
DOCUMENT TYPE:
                               Patent
LANGUAGE:
                               English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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                                                 APPLICATION NO.
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      WO 2009046266
                              A1 20090409 WO 2008-US78697
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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PRIORITY APPLN. INFO.:
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      A light emitting device using a phosphor comprising complexes with
AB
      tridentate ligands is described, where the emissive phosphorescent
      material comprises at least one tridentate ligand bound to a metal center,
      and where at least one of the bonds to the tridentate ligand is a
      carbon-metal bond.
      1141494-61-2 1141494-83-8 1141494-84-9
      1141494-94-1
      RL: TEM (Technical or engineered material use); USES (Uses)
          (light emitting devices using phosphor comprising complexes with
          tridentate ligands)
RN
      1141494-61-2 CAPLUS
      INDEX NAME NOT YET ASSIGNED
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CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     1141494-94-1 CAPLUS
RN
CN
     INDEX NAME NOT YET ASSIGNED
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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:418723 CAPLUS

DOCUMENT NUMBER: 150:409823

TITLE: Organic electroluminescence devices having prescribed

light-emitting layers and carbene compound layers

INVENTOR(S): Sato, Yu; Kinoshita, Masaji; Tobiyo, Manabu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 124pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009076509	A	20090409	JP 2007-241625	20070918
PRIORITY APPLN. INFO.:			JP 2007-241625	20070918

AB The devices have carbene compound-containing layers between light-emitting (LE) layers and anodes (preferably adjacent to the LE layers) for reduced drive voltage and improved electroluminescent efficiency. The LE layers contain ≥1 hole transport material (A) and ≥1 electron transport material (B), where A and/or B are light-emitting materials, and the concentration of B decreases from cathodes toward anodes.

IT 913611-59-3

RL: TEM (Technical or engineered material use); USES (Uses) (hole transport layer; organic EL devices having predetd. light-emitting layers and carbene compound layers for reduced drive voltage and improved electroluminescent efficiency)

RN 913611-59-3 CAPLUS

CN Rhodium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-

, (OC-6-22)- (CA INDEX NAME)

L4 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:332832 CAPLUS

DOCUMENT NUMBER: 150:362860

TITLE: Metal complexes, organic electroluminescent elements

containing them with high emission efficiency and durability, and displays and illumination apparatus

using them

INVENTOR(S): Ikemizu, Hiroshi; Nishizeki, Masato; Oshiyama,

Tomohiro; Kato, Eisaku; Kita, Hiroshi Konica Minolta Holdings, Inc., Japan

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc. SOURCE: Jpn. Kokai Tokkyo Koho, 98pp.

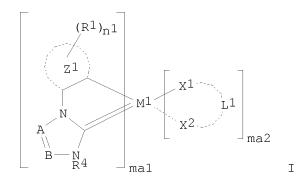
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 2009057505 PRIORITY APPLN. INFO.: GI	A	20090319	JP 2007-227500 JP 2007-227500	20070903 20070903	



The metal complexes are depicted as I (R1 = H, substituent; n1 = 1-4; R4 = cyclic hydrocarbon group, heterocyclic group; Z1 = 5- or 6-membered cyclic or heterocyclic group; A = CR2, N; R2 = H, substituent; B = CR3, N; R3 = H, substituent; X1L1X2 = bidentate ligand; X1,2 = H, N, O; L1 = atomic group; m1 = 1-3; m2 = 0-2; m1 + m2 = 2, 3; m1 = 00 metal), thus giving LED with high color purity and low power consumption.

IT 1133240-84-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dopant; metal complexes for organic LED with high emission efficiency and durability)

RN 1133240-84-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A

IT 1133240-83-1 1133240-85-3 1133240-88-6

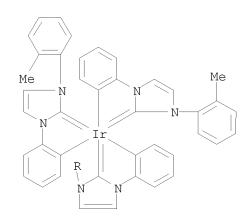
1133240-89-7 1133240-90-0

RL: TEM (Technical or engineered material use); USES (Uses)

(dopant; metal complexes for organic LED with high emission efficiency and durability)

RN 1133240-83-1 CAPLUS

CN INDEX NAME NOT YET ASSIGNED





RN 1133240-85-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

RN 1133240-88-6 CAPLUS CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A

PAGE 2-A

RN 1133240-89-7 CAPLUS CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A

PAGE 2-A

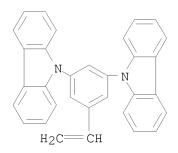
RN 1133240-90-0 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133240-93-3 CMF C55 H51 Ir N6 CCI CCS

CM 2

CRN 953414-49-8 CMF C32 H22 N2



RN 1133240-97-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133240-96-6 CMF C38 H26 N2

Page 21

CM 2

CRN 1133240-95-5 CMF C56 H53 Ir N6

CCI CCS

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PAGE 2-A

RN 1133241-00-5 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133240-99-9 CMF C38 H24 N2 O

CM 2

CRN 1133240-98-8 CMF C60 H49 Ir N6 CCI CCS

$$\begin{array}{c} \text{H}_2\text{C} = \text{CH} \\ \text{Me} \\ \text{C} \\ \text{Me} \\ \text{N} \\ \text{N} \\ \text{Me} \\ \text{Me}$$

RN 1133241-03-8 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133241-02-7 CMF C56 H34 N2 O2

Page 24

CM 2

CRN 1133241-01-6 CMF C60 H55 Ir N6

CCI CCS

PAGE 1-A

RN 1133241-06-1 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133241-05-0 CMF C39 H26 N2 O

CM 2

CRN 1133241-04-9 CMF C69 H63 Ir N6 CCI CCS

PAGE 1-A

PAGE 2-A

RN 1133241-12-9 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133241-11-8 CMF C32 H26 N2

Page 27

$$CH = CH_2$$
 NPh_2

CM 2

CRN 1133241-10-7 CMF C63 H61 Ir N6

CCI CCS

PAGE 1-A

RN 1133241-16-3 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133241-15-2 CMF C63 H59 Ir N6 CCI CCS

PAGE 2-A

CM 2

CRN 934972-67-5 CMF C30 H20 N4

RN 1133241-19-6 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1133241-18-5 CMF C56 H53 Ir N6 CCI CCS

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PAGE 2-A

\ Me

CM 2

CRN 1133241-17-4 CMF C36 H24 N4

CM 3

CRN 1133240-96-6 CMF C38 H26 N2

RN 1133241-21-0 CAPLUS

CN Iridium, bis[[1,1'-biphenyl]-3,4-diyl[3-(2,4,6-trimethylphenyl)-1H-benzimidazol-1-yl-2(3H)-ylidene]][4-[1-(4-ethenyl-2-methylphenyl)-1H-imidazol-2-yl- κ N3][1,1'-biphenyl]-3-yl- κ C]-, polymer with 9,9'-(5-ethenyl-1,3-phenylene)bis[9H-carbazole] (CA INDEX NAME)

CM 1

CRN 1133241-20-9 CMF C80 H65 Ir N6 CCI CCS

PAGE 2-A

PAGE 3-A

CM 2

CRN 953414-49-8 CMF C32 H22 N2

RN 1133241-23-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

CM 1

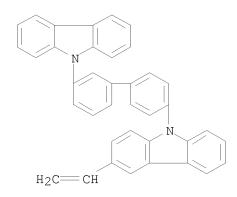
CRN 1133241-22-1 CMF C80 H59 Ir N6

CCI CCS

PAGE 3-A
Me

CM 2

CRN 1133240-96-6 CMF C38 H26 N2



L4 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:195407 CAPLUS

DOCUMENT NUMBER: 150:329946

TITLE: Reactivity of [Ru4(µ-H)4(CO)12] with N-heterocyclic

carbenes

AUTHOR(S): Cabeza, Javier A.; del Rio, Ignacio;

Fernandez-Colinas, Jose M.; Perez-Carreno, Enrique;

Sanchez-Vega, M. Gabriela; Vazquez-Garcia, Digna

CORPORATE SOURCE: Departamento de Quimica Organica e Inorganica-IUQOEM,

Universidad de Oviedo-CSIC, Oviedo, E-33071, Spain

SOURCE: Organometallics (2009), 28(6), 1832-1837

CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB The tetraruthenium tetrahydrido cluster compound [Ru4(μ -H)4(CO)12] (1) reacts at room temperature with N-heterocyclic imidazolylidene carbenes 1,3-R1R2Im to give the carbonyl substitution products [Ru4(μ -H)4(CO)11(R1R2Im)] (2-5; R1, R2:Me, Me; Ph, Me; Ph, Ph; mesityl, mesityl). In solution, compds. 2-5 are fluxional in the NMR time scale and display the same pattern of v(CO) IR absorptions. DFT calcns. have shown that the Cs arrangement of the Ru4H4 cluster core of these clusters is 0.2-1.7 kcal mol-1 more stable than the D2d cluster core, the smallest difference corresponding to the clusters with the very bulky 1,3-dimesitylimidazolin-2-ylidene ligand. Two conformers with Cs Ru4H4

cluster core have been found by x-ray crystallog. in the crystals of compound 3. The thermal stability of compds. 2-5 has also been studied. While the di-Me derivative 2 is stable in refluxing toluene for 3 h, the dimesityl derivative 5 slowly decomps. in solution at room temperature Two isostructural heptanuclear derivs., $[Ru7(\mu3-H)(\mu4-CO)(\mu-CO)2(CO)14\{\mu-(\eta1-\eta6-C6H4)RIm\}] \ (6,7;\ R=Me,\ Ph),$ which contain a quadruply bridging CO ligand and an orthometalated Ph ring that is addnl. coordinated as an $\eta6-$ arene ligand, are the major products of the thermolysis of compds. 3 and 4 in toluene at reflux temperature

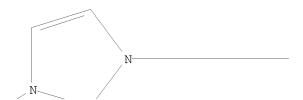
IT 1132683-47-6P

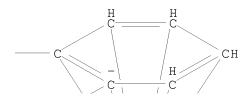
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, structure and stability of tetra- and heptaruthenium cluster 2-imidazolylidene carbonyl tetrahydride carbene complexes)

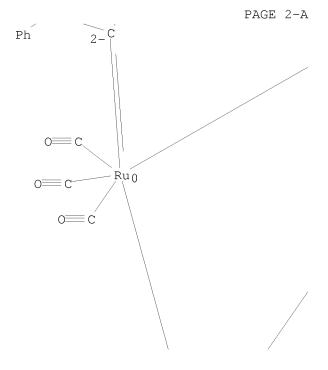
RN 1132683-47-6 CAPLUS

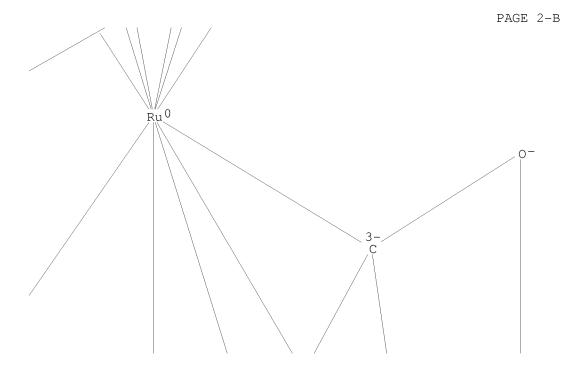
CN INDEX NAME NOT YET ASSIGNED

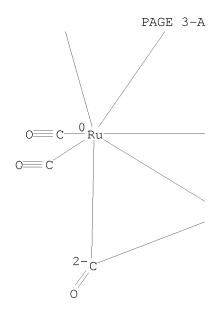
PAGE 1-A

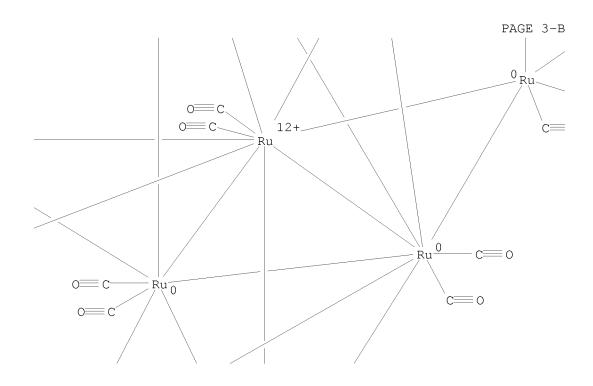












PAGE 3-C

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REFERENCE COUNT:

THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:116764 CAPLUS

DOCUMENT NUMBER: 150:179607

TITLE: Organic electroluminescent element with high

light-emission efficiency and excellent durability employing multiple hole-transporting light-emitting

materials with graded compositions

INVENTOR(S): Okada, Hisashi; Tobise, Manabu; Kinoshita, Masaru

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 29pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
US 20090026940	A1	20090129	US 2008-178457	20080723				
JP 2009032987	A	20090212	JP 2007-196673	20070727				
PRIORITY APPLN. INFO.:			JP 2007-196673 A	20070727				

AB An organic electroluminescent element is discussed including an organic layer including at least a light-emitting layer between a pair of electrodes, where the light-emitting layer comprises at least two hole transporting materials and an electron transporting host material, with at least one of the hole transporting materials being a hole transporting light-emitting material, and a total concentration of the at least two hole transporting materials in the light-emitting layer decreases from an anode side toward a cathode side.

IT 888725-36-8

RL: TEM (Technical or engineered material use); USES (Uses)

(light-emitting layer containing; organic electroluminescent element with

high

light-emission efficiency and excellent durability employing multiple hole-transporting light-emitting materials with graded compns.)

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:116719 CAPLUS

DOCUMENT NUMBER: 150:155945

TITLE: Organic electroluminescent elements employing a hole

transporting light-emitting material with a graded

concentration

INVENTOR(S): Okada, Hisashi; Tobise, Manabu; Kinoshita, Masaru

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 27pp.

CODEN: USXXCO

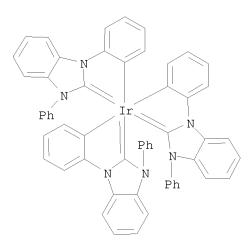
DOCUMENT TYPE: Patent LANGUAGE: English

(9CI) (CA INDEX NAME)

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE 														
		20090129	US 2008-178445	20080723														
RITY APPLN. INFO.:			JP 2007-196676 A	20070727														
Organic electrolumi	nescent	elements ar	e described including a	n organic layer														
including a light-emitting layer disposed between a pair of electrodes,																		
where the light-emitting layer contains at least one hole transporting light-emitting material and at least one electron-transporting host material, and a concentration of the hole transporting light-emitting material																		
														the light-emitting	layer d	ecreases fro	m an anode side toward	a cathode
side.																		
888725-36-8																		
(hole-transporti	ng phos	phorescent m	aterial; organic electr	oluminescent														
elements employi	ng hole	transportin	g light-emitting materi	al with														
graded concentra	tion)																	
888725-36-8 CAPLUS																		
Iridium, tris[(3-ph	enyl-1H	-benzimidazo	1-1-y1-2(3H)-ylidene)-1	,2-phenylene]-														
,	US 20090026938 JP 2009032990 ORITY APPLN. INFO.: Organic electrolumi including a light-e where the light-emi light-emitting mate material, and a con the light-emitting side. 888725-36-8 RL: TEM (Technical	US 20090026938 A1 JP 2009032990 A ORITY APPLN. INFO.: Organic electroluminescent including a light-emitting where the light-emitting I light-emitting material an material, and a concentrat the light-emitting layer d side. 888725-36-8 RL: TEM (Technical or enging (hole-transporting phose elements employing hole graded concentration) 888725-36-8 CAPLUS	US 20090026938 A1 20090129 JP 2009032990 A 20090212 ORITY APPLN. INFO.: Organic electroluminescent elements ar including a light-emitting layer dispowhere the light-emitting layer contain light-emitting material and at least omaterial, and a concentration of the hthe light-emitting layer decreases froside. 888725-36-8 RL: TEM (Technical or engineered mater (hole-transporting phosphorescent melements employing hole transporting graded concentration) 888725-36-8 CAPLUS	US 20090026938 Al 20090129 US 2008-178445 JP 2009032990 A 20090212 JP 2007-196676 ORITY APPLN. INFO: Organic electroluminescent elements are described including a including a light-emitting layer disposed between a pair of ewhere the light-emitting layer contains at least one hole tralight-emitting material and at least one electron-transporting material, and a concentration of the hole transporting light-the light-emitting layer decreases from an anode side toward side. 888725-36-8 RL: TEM (Technical or engineered material use); USES (Uses) (hole-transporting phosphorescent material; organic electrelements employing hole transporting light-emitting material graded concentration)														



L4 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:114549 CAPLUS

DOCUMENT NUMBER: 150:179594

TITLE: Organic electroluminescence (EL) devices with high

luminous efficiency and suppressed dark spot, and

display devices and lamps having them

INVENTOR(S): Yasukawa, Noriko; Kato, Eisaku

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 105pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2009021336 PRIORITY APPLN. INFO.:	A	20090129	JP 2007-182063 JP 2007-182063	20070711 20070711		
OTHER SOURCE(S): GI	MARPAT	150:179594				

(Cz)
$$_{\overline{n}}$$
 Ar $_{\overline{X}^{3}}$ $_{\overline{X}^{2}}$ $_{\overline{X}^{4}}$ II

The EL devices include anodes, luminescent layers containing host compds. and metal complexes, electron transport layers, and cathodes, wherein the luminescent layers contain metal complexes of I (X4 = N, C; Z = hydrocarbon ring, heterocyclic ring; X3, Y = C, N; A = atomic groups forming 5 to 6-membered hydrocarbon or heterocyclic ring with X3C; B = CR1:CR2, N:CR2, CR1:N, N:N; R1, R2 = H, substituent; X1L1X2 = bidentate ligand; X1, X2 = C, N, O; L1 = atomic group forming bidentate ligand with X1 and X2; m1 = 1, 2, 3; m2 = 0, 1, 2; m1 + m2 = 2, 3; M1 = Group VIII metal), and the electron transport layers contain II [n = 1, 2; Ar = arylene, heteroarylene; R3, R4 = H, aryl; X1-3 = :CR, :N; at least one of X1-3 is :N; R = H, substituent; Cz = (un)substituted carbazolyl]. The devices can prevent crystallization of organic layers.

II 100761-23-6

RL: TEM (Technical or engineered material use); USES (Uses) (dopant, luminescent layer; organic EL devices with high luminous efficiency and suppressed dark spot for display devices and lamps) 1100761-23-6 CAPLUS

CN Iridium, [(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[1-(2,4,6-trimethylphenyl)-1H-imidazol-2-yl- κ N3]phenyl- κ C]- (CA INDEX NAME)

RN

ANSWER 11 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

2009:114548 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 150:179593

TITLE: Organic electroluminescent (EL) devices with high

luminous efficiency and suppressed dark spot, and display devices and lamps having them

INVENTOR(S): Yasukawa, Noriko; Kato, Eisaku

Konica Minolta Holdings, Inc., Japan Jpn. Kokai Tokkyo Koho, 98pp. PATENT ASSIGNEE(S):

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

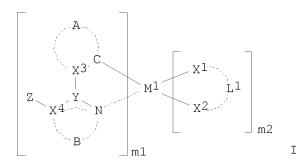
PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2009021335 A 20090129 JP 2007-182062 20070711

PRIORITY APPLN. INFO.: JP 2007-182062 20070711

OTHER SOURCE(S): MARPAT 150:179593

GΙ



The EL devices include anodes, luminescent layers containing host compds. and metal complexes, and cathodes, wherein the luminescent layers contain metal complexes of I (X4 = N, C; Z = hydrocarbon ring, heterocyclic ring; X3, Y = C, N; A = atomic groups forming 5 to 6-membered hydrocarbon or heterocyclic ring with X3C; B = CR1:CR2, N:CR2, CR1:N, N:N; R1, R2 = H, substituent; X1L1X2 = bidentate ligand; X1, X2 = C, N, O; L1 = atomic group forming bidentate ligand with X1 and X2; m1 = 1, 2, 3; m2 = 0, 1, 2; m1 + m2 = 2, 3; M1 = Group VIII metal) and Ar4Ar5N(p-C6H4-xRxx)mAr2NAr1Ar3(p-C6H4-yRyy)nNAr6Ar7 (Ar1 = aryl; Ar2, Ar3 = arylene; Ar4-7 = aryl; Rx, Ry = substituent; x, y = 0-4; m, n = 0-3; Ar2 and Ar3, Ar4 and Ar5, and/or Ar6 and Ar7 are connected through direct bonding, O, S, or alkylene). The metal complexes (dopants) and host compds. will not interact with each other, thus cause no crystallization in organic

layers.

IT 1100761-23-6

RL: TEM (Technical or engineered material use); USES (Uses) (dopant; organic EL devices with high luminous efficiency and suppressed dark spot for displays and lamps)

RN 1100761-23-6 CAPLUS

CN Iridium, [(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[1-(2,4,6-trimethylphenyl)-1H-imidazol-2-yl- κ N3]phenyl- κ C]- (CA INDEX NAME)

ANSWER 12 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:86345 CAPLUS

DOCUMENT NUMBER: 150:155890

TITLE: Organic electroluminescence device showing improved

> light efficiency, luminescence lifetime, uniform brightness, and suppressed dark spot formation, and

its use in display and illumination apparatus

INVENTOR(S): Yasukawa, Noriko; Kato, Eisaku

Konica Minolta Holdings, Inc., Japan Jpn. Kokai Tokkyo Koho, 112pp. PATENT ASSIGNEE(S):

SOURCE:

Page 47

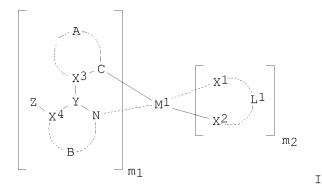
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009016719	A	20090122	JP 2007-179521	20070709
PRIORITY APPLN. INFO.:			JP 2007-179521	20070709
GI				



$$(A^{1}) n_{2}$$
 $N-L-N$
 $(A^{2}) n_{3}$
 $(A^{3}) n_{4}$
 $(A^{3}) n_{4}$

The title organic electroluminescence device contains a metal complex compound represented by I [X1, X2 = C, N, O; X3 = C, N; X3, X4, Y = C, N; Z = hydrocarbon ring, heterocycle ring; A = atom group for forming 5- to 6-member hydrocarbon or heterocycle ring; B = -C(R01):C(R02)-, -N:C(R02)-, -C(R01):N-, -N:N-; R01, R02 = H, substituent; L1 = atom group for forming ligand; m1 = 1, 2, 3; m2 = 0, 1, 2; m1+m2 = 2 or 3; M1 = group 8 to 10 metal] in an electroluminescence layer and a compound represented by II [A1-4 = substituent; L = -Ar5-(-L2-Ar6-)n1-; Ar5, Ar6 = arylene; L2 = single bond, connection group; n1 = 0, 1; n2, n3, n4, n5 = 0-5] in a pos. hole transport layer.

IT 1100761-23-6

RL: MOA (Modifier or additive use); USES (Uses) (electroluminescence dopant material; organic electroluminescence device

CN

showing improved light efficiency, luminescence lifetime, uniform brightness, and suppressed dark spot formation, and its use in display and illumination apparatus)

RN 1100761-23-6 CAPLUS

Iridium, [(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[1-(2,4,6-trimethylphenyl)-1H-imidazol-2-yl- κ N3]phenyl- κ C]- (CA INDEX NAME)

PAGE 1-A

L4 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:86314 CAPLUS

DOCUMENT NUMBER: 150:155889

Page 49

TITLE: Organic electroluminescence device showing high light

efficiency, long luminous lifetime, improved storage stability, and suppressed dark spot formation, and its

use in display apparatus and illumination apparatus

INVENTOR(S): Yasukawa, Noriko; Kato, Eisaku

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 89pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009016718 PRIORITY APPLN. INFO.:	A	20090122	JP 2007-179520 JP 2007-179520	20070709 20070709
GI				

AB The title organic electroluminescence device contains a metal complex compound represented by I [X1, X2 = C, N, O; X3 = C, N; X3, X4, Y = C, N; Z = hydrocarbon ring, heterocycle ring; A = atom group for forming 5- to 6-member hydrocarbon or heterocycle ring; B = -C(R01):C(R02)-, -N:C(R02)-, -C(R01):N-, -N:N-; R01, R02 = H, substituent; L1 = atom group form forming ligand; m1 = 1, 2, 3; m2 = 0, 1, 2; m1+m2 = 2 or 3; M1 = group 8 to 10 metal] and a compound represented by II [A = alky1, alkoxy, ary1, heteroary1; Ar1-4 = ary1; Rx, Ry, Rz = substituent; x, z = 0-4; y = 0-3]

in an electroluminescence layer.

IT 1100761-23-6

RL: MOA (Modifier or additive use); USES (Uses)

(electroluminescence dopant material; organic electroluminescence device showing high light efficiency, long luminous lifetime, improved storage stability, and suppressed dark spot formation, and its use in display apparatus and illumination apparatus)

RN 1100761-23-6 CAPLUS

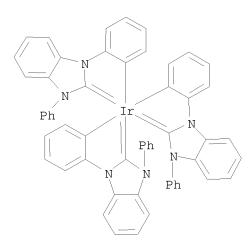
CN Iridium, [(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[1-(2,4,6-trimethylphenyl)-1H-imidazol-2-yl- κ N3]phenyl- κ C]- (CA INDEX NAME)

PAGE 1-A

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ANSWER 14 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
                        2009:20278 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        150:132601
TITLE:
                        Organic light-emitting diodes comprising at least one
                        disilyl compound selected from disilylcarbazoles,
                        disilyldibenzofurans, disilyldibenzothiophenes,
                        disilyldibenzophospholes, disilyldibenzothiophene
                        S-oxides and disilyldibenzothiophene S,S-dioxides
                        Langer, Nicolle; Kahle, Klaus; Lennartz, Christian;
INVENTOR(S):
                        Molt, Oliver; Fuchs, Evelyn; Rudolph, Jens;
                        Schildknecht, Christian; Watanabe, Soichi; Wagenblast,
                        Gerhard
                        BASF SE, Germany
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 102pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        German
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                         APPLICATION NO.
    PATENT NO.
                      KIND DATE
                               _____
                                          _____
                       ----
                                          WO 2008-EP58207
    WO 2009003919
                        A1 20090108
        W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
            CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
            FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
            KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
            ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
            PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
            TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
            IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
            TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
            AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
                                           EP 2007-111824
PRIORITY APPLN. INFO.:
                                                             A 20070705
                                                            A 20080326
                                           EP 2008-153306
AΒ
    Organic light-emitting diodes comprising an anode and a cathode and a
    light-emitting layer arranged between the anode and the cathode, and
    optionally ≥1 addnl. layer are described in which the
    light-emitting layer and/or the addnl. layer(s) comprises ≥1 compound
    selected from disilylcarbazoles, disilyldibenzofurans,
    disilyldibenzothiophenes, disilyldibenzophospholes,
    disilyldibenzothiophene S-oxides, and disilyldibenzothiophene
    S,S-dioxides. Light-emitting layers comprising \geq 1 of the
    aforementioned compds., the use of the compds. as matrix materials,
    hole/exciton blocker materials, electron/exciton blocker materials, hole
    injection materials, electron injection materials, hole conductor
    materials and/or electron conductor materials, and devices selected from
    the group consisting of stationary visual display units, mobile visual
    units and illumination units comprising ≥1 of the organic
    light-emitting diodes are also described.
    888725-36-8
ΙT
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (organic light-emitting diodes comprising at least one disilyl compound)
```

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1502745 CAPLUS

DOCUMENT NUMBER: 150:67325

TITLE: Organic electroluminescent elements and

electroluminescent materials

INVENTOR(S): Fujimura, Osamu; Fukunaga, Kenji; Honma, Takashi;

Machida, Toshikazu

PATENT ASSIGNEE(S): UBE Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 46pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT	NO.			KIND DATE			APPLICATION NO.						DATE			
WO	2008153088			A1 20081218			WO 2008-JP60734						20080612				
	W: AE, AG, AL,		AL,	ΑM,	ΑO,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	
		CA,	CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,
		FI,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,
		KG,	KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,
		ME,	MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,
		PL,	PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW			
	RW:	ΑT,	ΒE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HR,	HU,
		ΙE,	IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	ΝL,	NO,	PL,	PT,	RO,	SE,	SI,	SK,
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML_{\prime}	MR,	NE,	SN,	TD,
		ΤG,	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,
		ΑM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM							
PRIORITY	Z APP	LN.	INFO	.:						JP 2	007-	1562	65	Ž	A 2	0070	613

JP 2008-2869 A 20080110

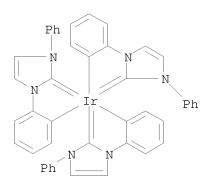
AB An object of this invention is to produce a phosphorescent organic electroluminescent element which can realize an electroluminescent peak in a deep blue region of not more than 440 nm which is important for completing a full-color display. The object can be attained by an organic electroluminescent element comprising a pair of electrodes, a luminescent layer or a plurality of thin organic compound layers including a luminescent layer between the pair of electrodes, characterized in that a phosphorescent electroluminescent peak appears at a wavelength of not more than 440 nm and further characterized in that the maximum phosphorescent electroluminescent peak appears in a deep blue region at a wavelength of not more than 440 nm, and the luminescent color is such that, in a CIE color system, y-coordinate is less than 0.180.

IT 895556-02-2

RL: TEM (Technical or engineered material use); USES (Uses) (phosphorescent organic electroluminescent elements for full-color displays)

RN 895556-02-2 CAPLUS

CN Iridium, tris[1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1334493 CAPLUS

DOCUMENT NUMBER: 149:534395

TITLE: Silanes containing phenothiazine-S-oxide or

phenothiazine-S,S-dioxide groups as matrix and blocker components of organic light-emitting devices (OLEDs) $\,$

INVENTOR(S): Moonen, Nicolle; Kahle, Klaus; Lennartz, Christian;

Schildknecht, Christian; Nord, Simon; Molt, Oliver; Fuchs, Evelyn; Rudolph, Jens; Wagenblast, Gerhard

PATENT ASSIGNEE(S): BASF SE, Germany SOURCE: PCT Int. Appl., 80pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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A1 20081106 WO 2008-EP54801
     WO 2008132085
                                                                   20080421
        W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
             TN, TR, TI, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                           EP 2007-107055
                                                              A 20070426
                        MARPAT 149:534395
OTHER SOURCE(S):
     Silanes containing phenothiazine-S-oxide or phenothiazine-S,S-dioxide groups,
     [(R2oR3pC12H8-o-pXN)nL]mSiR14-m [1; C12H8XN = 10-phenothiazinyl S-oxide, X
     = SO; 10-phenothiazinyl S, S-dioxide, X = SO2; R2, R3 = alkyl,
     (hetero)aryl, amino, hydroxy, alkoxy, aryloxy, arylcarbonyloxy, acyl,
     amido, ester, thiocarboxylate, carbonylamino, silyl; R1 = H, alkyl, aryl,
     4-carbazol-9-ylphenyl; m = 1-4, preferably 2-4; n = 1,2; o, p = 0-4,
     preferably o, p = 0; L = bridging group, preferably L = (un)substituted
     phenylene, heterocyclodiyl], useful as electron-conducting/blocker or
     electron and hole conducting/blocker materials, as components for
     light-emitting layers in combination with a triplet emitter metal complex,
     were prepared by a multistep procedure, comprising N-alkylation of
     (un) substituted phenothiazine by a spacer derivative X-L-Y to give a
     phenothiazine derivs. (R2oR3pC12H8-o-pXN)nLY (2, same R, L; X = S, Y =
     halo), followed by reaction with halo- or alkoxysilanes R1mSiY14-m (6; Y1
     = halo, alkoxy) and oxidation of the phenothiazine moiety into S-oxide or
     S, S-dioxide. In an example, Grignard reaction of
     10-(4-bromophenyl)phenothiazine with Me2SiCl2 gave bis-thiazine silane,
     (SC12H8N-1, 4-C6H4) 2SiMe2, which gave the compound of the invention,
     (02SC12H8N-1,4-C6H4)2SiMe2 (1a) upon oxidation with 70% m-chloroperbenzoic
     acid for 20 h at 20°. In another example, OLED having iridium
     tris[1-methyl-3-(4-trifluoromethylphenyl)benzimidazole] complex as a
     dopant to a light-emitting matrix composed from the compound la, exhibited
     electroluminescence at 455 nm with 6.0 cd/A current efficiency, 5.4%
     quantum yield and 400 \text{ cd/m2} light d. Preparation of iridium cyclometalated
     N-arylbenzimidazole carbene complexes as phosphorescent materials is also
     described.
     888725-36-8
ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (preparation of silyl phenothiazine oxides and dioxides as electron-,
        hole-transporting and matrix materials for organic light-emitting devices
        comprising cyclometalated iridium carbene complexes)
     888725-36-8 CAPLUS
RN
CN
     Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-
      (9CI) (CA INDEX NAME)
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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1149160 CAPLUS

DOCUMENT NUMBER: 149:543892

TITLE: Controlling the radiative rate of deep-blue

electrophosphorescent organometallic complexes by

singlet-triplet gap engineering

AUTHOR(S): Haneder, Stephan; Da Como, Enrico; Feldmann, Jochen;

Lupton, John M.; Lennartz, Christian; Erk, Peter; Fuchs, Evelyn; Molt, Oliver; Muenster, Ingo;

Schildknecht, Christian; Wagenblast, Gerhard
CORPORATE SOURCE: Photonics and Optoelectronics Group, Department of

Physics and CeNS, Ludwig-Maximilians-Universitaet,

Munich, 80799, Germany

SOURCE: Advanced Materials (Weinheim, Germany) (2008), 20(17),

3325-3330

CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

AB The phosphorescence radiative rate of electroluminescent metal complexes is controlled by the singlet-triplet splitting (ΔEST). The figure shows how the chemical tailoring of ΔEST influences the radiative rate in a new class of deep-blue emitting complexes. This approach holds promise for the preparation of efficient deep-blue OLEDs (see inset) for solid state lighting applications.

IT 888725-36-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(controlling the radiative rate of deep-blue electrophosphorescent organometallic complexes by singlet-triplet gap engineering)

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1029003 CAPLUS

DOCUMENT NUMBER: 149:378875

TITLE: C-H Bond Activation through σ -Bond Metathesis

and Agostic Interactions: Deactivation Pathway of a

Grubbs Second-Generation Catalyst

AUTHOR(S): Mathew, Jomon; Koga, Nobuaki; Suresh, Cherumuttathu H.

CORPORATE SOURCE: Computational Modeling and Simulation Section,

National Institute for Interdisciplinary Science and

Technology, CSIR, Trivandrum, Kerala, India Organometallics (2008), 27(18), 4666-4670

SOURCE: Organometallics (2008), 27(18), CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

A mechanistic study was carried out to explore the structural and energetic features leading to the decomposition pathways of a Grubbs 2nd-generation olefin metathesis catalyst using d. functional theory. active form of the catalyst 2 has an inherent tendency to undergo intramol. reactions, as the highly electron-deficient Ru center is in close proximity to the C-H bonds of the N-substituents. The theor. results strongly suggest that the deactivation pathway initiates with the C-H activation rather than pericyclic cyclization suggested for the related Grubbs-Hoveyda catalyst system by Blechert et al. Complex 2 passes through five transition states, viz., (i) formation of an agostic complex through the activation of a C-H bond of the N-heterocyclic carbene (NHC)-Ph ring; (ii) C-H σ -bond metathesis with a carbene moiety to form a benzyl complex; (iii) two-step rotational transformations of the benzyl unit; and (iv) carbene-arene bond formation to yield the 1st product, 3. The last step is the rate-determining step, with the highest activation barrier of 28.6 kcal/mol, while the activation energy for steps (i), (ii), and (iii) are 13.6, 26.7, and 18.8 kcal/mol, resp. The transformation of the rigid carbene unit to a flexible benzyl unit facilitates the rotational transformations in step (iii) and the subsequent C-C bond formation in step (iv). The $\eta 6\text{-coordination}$ of Ph ring in 3 changes to $\eta 2$ to produce a less strained complex, and the

C-H activation of the 2nd NHC-Ph ring occurs easily with this transformation, leading to a C-H agostic complex through a transition state with the activation barrier of 28.3 kcal/mol. The agostic interaction breaks up in the next step, leading to the Ru-C bond formation and the reductive elimination of HCl to the 2nd product, 4. The flexibility of all three Ph rings through their single bond connectivity plays a major role in the deactivation process of 2, as it leads to C-H agostic interactions with the Ru center. Therefore, the deactivation can be controlled by designing NHCs with rigid substituents, which may not undergo agostic interactions.

IT 1059139-80-8 1059139-82-0 1059139-86-4

1059139-87-5

RL: PRP (Properties)

(calculated optimized geometry and energy; mechanism of deactivation pathway of a Grubbs second-generation olefin metathesis catalyst via C-H bond activation and agostic interactions using DFT)

RN 1059139-80-8 CAPLUS

CN Ruthenium, dichloro[1,3-dihydro-1-(phenyl- κ C2, κ H2)-3-phenyl-1H-benzimidazol-2-ylidene- κ C2](phenylmethylene)-, (OC-6-52)- (CA INDEX NAME)

RN 1059139-82-0 CAPLUS

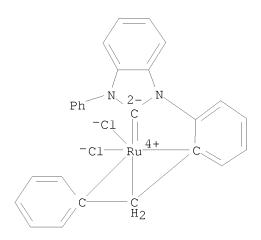
CN Ruthenium, dichloro[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene](phenylmethyl- κ C, κ H)-, (OC-6-52)- (CA INDEX NAME)

RN 1059139-86-4 CAPLUS

CN Ruthenium, dichloro[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene][(phenyl- κ C1)methyl- κ C]-, (OC-6-32)- (CA INDEX NAME)

RN 1059139-87-5 CAPLUS

CN Ruthenium, dichloro[1,3-dihydro-1-phenyl-3-[2-[(phenyl- κ C1)methyl- κ C]phenyl- κ C2]-2H-benzimidazol-2-ylidene]-, (OC-6-43)- (CA INDEX NAME)



REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:773582 CAPLUS

DOCUMENT NUMBER: 149:91175

TITLE: Organic electroluminescent devices including no

optical defect and high luminance and efficiency

INVENTOR(S): Iwakuma, Toshihiro; Watanabe, Masami; Okuda, Fumio;

Nishimura, Kazuki; Hosokawa, Chishio

Page 59

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2008147424	A	20080626	JP 2006-332946	20061211		
PRIORITY APPLN. INFO.:			JP 2006-332946	20061211		
OTHER SOURCE(S):	MARPAT	149:91175				
GI						

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

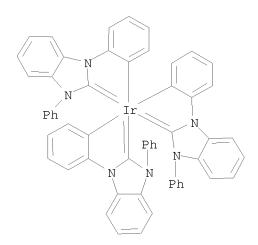
AB The devices contain, in the layers adjacent to emitting layers, metal complexes I-IV [M = metal; R1 = H, alk(en)yl, alkynyl, (hetero)aryl, etc.; R2, R3, R8, R11, R12 = H, alkyl, aralkyl, CN, CF3, halo, etc.; J = R, CN, CF3, CO2R, etc. (R = H, halo, alk(en)yl, etc.); XY = chiral ligand, auxiliary ligand; e = 0-4; m, n \geq 1; m + n = the maximum coordination number for M]. The layers adjacent to the emitting layers may be hole-, electron-, and/or exciton-blocking layers. The devices show long service life.

IT 913636-78-9

RL: TEM (Technical or engineered material use); USES (Uses) (exciton-blocking layers; organic electroluminescent devices including no optical defect and high luminance and efficiency)

RN 913636-78-9 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, (OC-6-22)- (CA INDEX NAME)



L4 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

Page 60

ACCESSION NUMBER: 2008:773530 CAPLUS

Т

DOCUMENT NUMBER: 149:91173

TITLE: Organic electroluminescent devices free from image

defects and showing high efficiency at low drive

voltage

INVENTOR(S): Iwakuma, Toshihiro; Watanabe, Masami; Okuda, Fumio;

Nishimura, Kazuki; Hosokawa, Chishio

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 18pp.

CODEN: JKXXAF

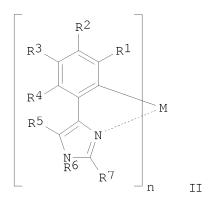
DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2008147400 PRIORITY APPLN. INFO.:	A	20080626	JP 2006-332516 JP 2006-332516	20061208 20061208		
OTHER SOURCE(S): GI	MARPAT	149:91173				

R2
R3
R1
R4
R5N
N
R6
R7



AB The devices have, in hole-injection and/or -transport layers, metal complexes represented by I and/or II [R1-R7 = H, CN, nitro, halo, C1-20 alkyl(oxy), amino, etc.; M = Ir, Rh, Pt, Pd; n = 1-3] and preferably (Cz)cAr4bAr3Ar1aAr2 [Cz = (C18-60 aryl)carbazolyl, azacarbazolyl, etc.; Ar1, Ar2 = C6-60 aryl, C3-60 heterocycle; Ar3 = C6-60 aromatic or C3-60 heterocyclic group; Ar4 = benzene, thiophene, triazole, or (spiro)fluorene residue] in emitting layers.

IT 895556-06-6

RL: TEM (Technical or engineered material use); USES (Uses) (hole-injecting layers; organic electroluminescent devices free from defects and showing high efficiency at low drive voltage)

RN 895556-06-6 CAPLUS

CN Iridium, tris[[5-(1-methylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:531767 CAPLUS

DOCUMENT NUMBER: 150:398687

TITLE: Discovery and synthesis of a new bis(thiourea)-Pd

pincer guided by ESI-MS/MS

AUTHOR(S): Rui, Li; Wei, Chen; Shi, Jianyou; Chen, Lijuan; Chen,

Yingchun; Ding, Lisheng; Wei, Yuquan

CORPORATE SOURCE: State Key Lab. Biotherapy, West China Hospital,

Sichuan University, Chengdu, 610041, Peop. Rep. China

SOURCE: Journal of Mass Spectrometry (2008), 43(4), 542-546

CODEN: JMSPFJ; ISSN: 1076-5174

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

The fission mechanisms of thioureas and their corresponding Pd complexes under electrospray ionization (ESI) conditions were investigated. A new bis(thiourea)palladium pincer and a series of hybrid (thiourea and carbene)palladium pincers and bis (carbene)palladium pincer were observed in ESI-MS expts. The new bis(thiourea)palladium pincer was synthesized and its catalytic activity in the Suzuki coupling reaction forming biaryls was compared with the bis(thiourea)-PdO complex. E.g., coupling of 3-O2NC6H4Br with PhB(OH)2 gave 99% m-PhC6H4NO2 with either of these palladium catalysts.

IT 1138479-16-9P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(mol. structure; discovery and preparation of a new bis(thiourea)palladium pincer guided by ESI-MS/MS and catalytic activity of this and similar complexes in Suzuki coupling reaction)

RN 1138479-16-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 22 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:381102 CAPLUS

DOCUMENT NUMBER: 148:366850

TITLE: Organic light emitting diode display with extended

lifetime

INVENTOR(S): Schildknecht, Christian; Fuchs, Evelyn; Moonen,

Nicolle; Kahle, Klaus; Lennartz, Christian; Molt,

Oliver; Wagenblast, Gerhard; Rudolph, Jens

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 64pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND I		DATE			APPLICATION NO.						DATE			
WO 2008034 WO 2008034		A2 20080327 A3 20080710					WO 2007-EP59648						20070913				
CH GB KM MG PT	, AG, , CN, , GD, , KN, , MK, , RO,	CO, GE, KP, MN, RS,	CR, GH, KR, MW, RU,	CU, GM, KZ, MX, SC,	CZ, GT, LA, MY, SD,	DE, HN, LC, MZ, SE,	DK, HR, LK, NA, SG,	DM, HU, LR, NG, SK,	DO, ID, LS, NI, SL,	DZ, IL, LT, NO, SM,	EC, IN, LU, NZ, SV,	EE, IS, LY, OM,	EG, JP, MA, PG,	ES, KE, MD, PH,	FI, KG, ME, PL,		
RW: AT IS BJ		BG, LT, CG,	CH, LU, CI,	CY, LV, CM,	CZ, MC, GA,	DE, MT, GN,	DK, NL, GQ,	EE, PL, GW,	ES, PT, ML,	FI, RO, MR,	FR, SE, NE,	SI, SN,	SK, TD,	TR, TG,	BF, BW,		

BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

KR 2009051266 A 20090521 KR 2009-706991 20090406 PRIORITY APPLN. INFO.: EP 2006-121077 A 20060921 EP 2007-111816 A 20070705 WO 2007-EP59648 W 20070913

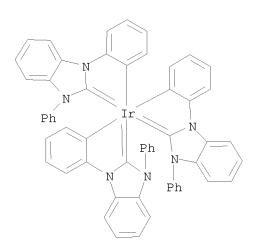
OTHER SOURCE(S): MARPAT 148:366850

The present invention relates to an organic light-emitting diode (OLED) which has a light-emitting layer C which contains at least one hole-conducting material and at least one phosphorescence emitter, mixts. containing at least one carbene complex in combination with at least one hole-conducting material or in combination with at least one phosphorescence emitter, and the use of mixts. containing at least one hole-conducting material and at least one phosphorescence emitter as a light-emitting layer in OLEDs for extending the lifetime of the light-emitting layer. The organic light-emitting diode according to the invention can have in at least one of the layers of the organic light-emitting diode, preferably in the hole-blocking layer and/or the electron-blocking layer and/or the light-emitting layer, in addition to the hole-conducting material and the emitter, at least one compound selected from disilylcarbazoles, disilyldibenzofurans, disilyldibenzothiophenes, disilyldibenzophospholes, disilyldibenzothiophene-S-oxides and disilyldibenzothiophene-S,S-dioxides. ΙT 888725-36-8

RL: TEM (Technical or engineered material use); USES (Uses) (organic light emitting diode display with extended lifetime)

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)



L4 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:378150 CAPLUS

DOCUMENT NUMBER: 148:366829

TITLE: Organic electroluminescence element showing improved

blue phosphorescent light emitting efficiency, service

life, and chromaticity

INVENTOR(S): Suzuri, Yoshiyuki; Nakata, Aki; Naito, Mitsuyoshi;

Kita, Hiroshi

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: PCT Int. Appl., 81pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					KIND DATE			APPLICATION NO.						DATE			
	WO	2008	0355	 71		A1 20080327			WO 2007-JP67391						20070906			
	W: AE, AG, AL,		AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,		
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,
			KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
			MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
			PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,	TN,
			TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW				
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
			BY,	KG,	KΖ,	MD,	RU,	TJ,	TM									
PRIO	RITY	APP:	LN.	INFO	.:					JP 2006-254127						A 20060920		
OTHER SOURCE(S):					MAR:													

OTHER

$$\begin{bmatrix} (R^{1})_{n1} \\ Z \\ B^{1} \\ B^{5} \\ B^{4} - B^{3} \end{bmatrix}_{m1} \begin{bmatrix} X^{1} \\ X^{2} \\ X^{2} \end{bmatrix}_{m2}$$

Disclosed is an organic electroluminescence element which is improved in AΒ efficiency of emitting blue phosphorescent light, service life and chromaticity. Also disclosed is an organic electroluminescence element which can extract white light including the blue phosphorescent light. The organic electroluminescence elements are characterized by comprising an anode, a light-emitting layer unit having multiple light-emitting layers and a cathode, wherein each of at least two of the multiple light-emitting layers contains a phosphorescent compound represented by the general formula I (R1 = substituent; Z = nonmetal atoms for forming 5- to 7-membered ring; n1 = 0-5; B1-5 = C, N, O, S; at least one of B1-5 is N; M1 = group 8metal, group 9 metal, group 10 metal; X1, X2 = C, N, O; L1 = atoms together with X1 and X2 for forming ligand; m1 = 1, 2, 3; m2 = 0, 1, 2;m1+m2 = 2 or 3).

Ι

ΤТ 895556-02-2

RL: MOA (Modifier or additive use); USES (Uses)

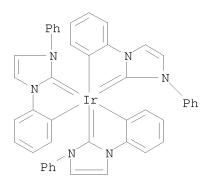
(organic electroluminescence element showing improved blue phosphorescent

light emitting efficiency, service life, and chromaticity)

RN 895556-02-2 CAPLUS

Iridium, tris[1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]-CN

(9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 24 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

2008:87809 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 148:285328

Computational study of C-C activation of TITLE:

1,3-dimesitylimidazol-2-ylidene (IMes) at ruthenium:

the role of ligand bulk in accessing reactive

intermediates

AUTHOR(S): Diggle, Richard A.; Macgregor, Stuart A.; Whittlesey,

Michael K.

CORPORATE SOURCE: School of Engineering and Physical Sciences,

Heriot-Watt University, Edinburgh, EH14 4AS, UK

SOURCE: Organometallics (2008), 27(4), 617-625

CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

D. functional theory calcns. have been employed to model phosphine AB substitution in Ru(PPh3)3(CO)(H)2 to form Ru(IMes)(PPh3)2(CO)(H)2 (1mono) and Ru(IMes)2(PPh3)(CO)(H)2 (1bis), as well as the novel C(aryl)-C(sp3) intramol. bond activation of the IMes ligand in 1bis. The computed ligand exchange energies show that 1bis is unstable with respect to displacement of IMes by PPh3 and will thus re-form 1mono over time. PPh3/IMes substitution also leads to a significant labilization of the PPh3 ligand trans to hydride, a result of increasing steric encumbrance upon the introduction of the bulky IMes ligands. The energetics of intramol. C-C and C-H activation have been computed for both 16e Ru(IMes)n(PPh3)3-n(CO) and 14e Ru(IMes)n(PPh3)2-n(CO) species (n = 1 or 2) and indicate that the introduction of a second IMes ligand does not significantly promote the actual C-C activation step. Instead the need to have two IMes ligands present in the metal coordination sphere before C-C activation can occur is linked to the promotion of PPh3 loss in 1bis, which makes the formation

Page 66

ΙT

of unsatd. species such as Ru(IMes)2(CO) particularly accessible. 434318-96-4 1008533-71-8 1008533-73-0

1008533-74-1 1008533-75-2

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(steric effects in carbon-hydrogen and carbon-carbon bond activation of dimesityl imidazolylidene ruthenium carbene hydride complexes)

RN 434318-96-4 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]hydrobis(triphenylphosphine)-, (OC-6-14)-(9CI) (CA INDEX NAME)

RN 1008533-71-8 CAPLUS

CN Ruthenium, carbonyl[1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene][(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methyl-, (SP-5-54)- (CA INDEX NAME)

RN 1008533-73-0 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methyl(triphenylphosphine)-, (SP-5-53)-(CA INDEX NAME)

RN 1008533-74-1 CAPLUS

CN Ruthenium, carbonyl[1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene][(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methyl(triphenylphosphine)-, (OC-6-65)- (CA INDEX NAME)

Me Me Me Me Me Me Me Me
$$\frac{1}{1}$$
 $\frac{1}{1}$ $\frac{1}{1}$

RN 1008533-75-2 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methylbis(triphenylphosphine)-, (OC-6-53)-(CA INDEX NAME)

IT 1008533-79-6 1008533-88-7 1008797-88-3
RL: FMU (Formation, unclassified); PRP (Properties); RCT (Reactant); FORM
 (Formation, nonpreparative); RACT (Reactant or reagent)
 (steric effects in carbon-hydrogen and carbon-carbon bond activation of dimesityl imidazolylidene ruthenium carbene hydride complexes)

RN 1008533-79-6 CAPLUS

CN Ruthenium, carbonyl(dihydrogen- κ H1, κ H2)[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methyl(triphenylphosphine)-, (PB-7-24-13566)- (CA INDEX NAME)

Me
$$H_3C$$
 H
 H
 PPh_3
 C
 C
 C
 C
 C
 Me
 Me

RN 1008533-88-7 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]hydro(triphenylphosphine)-, (SP-5-14)-(CA INDEX NAME)

RN 1008797-88-3 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]methyl(triphenylphosphine)-, (SP-5-35)-(CA INDEX NAME)

REFERENCE COUNT: 124 THERE ARE 124 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1176628 CAPLUS

DOCUMENT NUMBER: 147:448934

TITLE: Heteroleptic cyclometalated transition metal-carbene

complexes containing at least two differently

substituted N-heterocyclic carbene ligands and their

use in organic light-emitting diodes (OLEDS)

INVENTOR(S): Fuchs, Evelyn; Egen, Martina; Kahle, Klaus; Lennartz,

Christian; Molt, Oliver; Nord, Simon; Kowalsky, Wolfgang; Schildknecht, Christian; Johannes,

Hans-Hermann

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 88pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

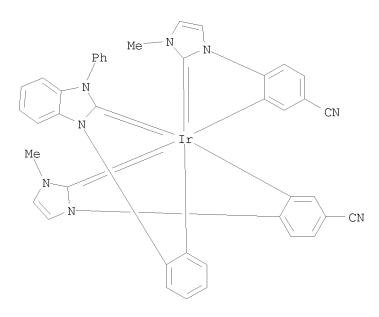
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PATENT NO.
                       KIND DATE
                                         APPLICATION NO. DATE
                                          _____
    _____
                       ----
                        A1 20071018 WO 2007-EP53213 20070403
    WO 2007115970
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
            CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
            GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
            KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK,
            MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
            RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
            GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM
                        A1 20081231
    EP 2007779
                                          EP 2007-727684
                                                                  20070403
        R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR,
            AL, BA, HR, MK, RS
    US 20090096367
                        A1
                               20090416
                                           US 2008-296112
                                                                  20081006
                                           KR 2008-726664
    KR 2009005349
                         Α
                               20090113
                                                                  20081030
                                                               A 20060405
PRIORITY APPLN. INFO.:
                                           EP 2006-112228
                                                               W 20070403
                                           WO 2007-EP53213
OTHER SOURCE(S):
                        MARPAT 147:448934
    Cyclometalated transition metal complexes, preferably iridium complexes
     [M(L)n(L1)m], (1; M = Ir, Co, Rh, Ni, Pd, Pt, Fe, Ru, Os, Cr, Mo, W, Tc,
    Re, Cu, Au, preferably M = Ir, Pt, Rh, Os; n+m \ge 2), containing sym.-
    and asym. substituted ligands L and L1, resp., having the structure of
    R3sQ2CR2:CR1XN(Y1)CQ1(Y2)Y3r [Q1 = C, P, N, O, S, Si, preferably Q1 = P,
    N, O, S; Q2 = bond, C-, N-, P-, O-, S-; r, s = 2-0, according to the
    valence of Q1, Q2; X = bond, silylene, C2-10 alkylene, (hetero)arylene,
    alkenediyl, alkynediyl, imino, phosphinidene, boryl, O, S, SO, SO2, CO,
    CO2, OCO; Y1, Y2 = H, organyl, Y1-Y2 = bridge forming 5-7-membered ring;
    Y3 = H, organyl for asym. L1, Y3 = R3sQ2CR2:CR1XN(Y1) with same meanings
    for sym. L; R1, R2 = H, organyl, R1-R2 = bridge forming (un)saturated
    5-7-membered ring; R3 = H, organyl], useful as phosphorescent substances
    for doping of light-emitting OLED layers, having enhanced tunability by
    variation of ligands and high electroluminescence efficiency, were prepared
    by stepwise complexation/metalation of the corresponding ligands L and L1
    with metal precursors and examined for their luminescence spectra and
    efficiency. In an example, iridium carbene intermediate
    [(COD)Clir:C(NPh)2(1,2-C6H4)] [1a, C(NPh)2(1,2-C6H4) =
    1,3-diphenylbenzimidazol-2-ylidene] was prepared by reaction of 22.5 mmol of
     [Ir2(\mu-C1)2(COD)2] with 45 mmol of 1,3-diphenylbenzimidazol-2-ylidene
     (L) generated from 45 mmol of 1,3-diphenylbenzimidazolium
    tetrafluoroborate by 45 mmol of potassium hexamethyldisilazide in 250 mL
    of toluene with 49% yield. The intermediate 1a was then reacted with
    AqBF4 and 3 equiv of 1-(4-cyanophenyl)-3-methylimidazol-2-ylidene (L1),
    generated from the corresponding imidazolium salt, giving the
    cyclometalated product, according to invention,
     [[1-(C6H4-\kappaC2)-3-Ph-benzimidazol-2-ylidene][1-(4-NCC6H3-\kappaC2)-3-
    Me-imidazol-2-ylidene]2Ir] (1b) with 34% yield. In another example, a
    polymethylmethacrylate film doped with 2 wt% of the complex 1b exhibited
    electroluminescence at 450 nm with quantum yield of 78%.
    952311-89-6P
ΙT
    RL: PEP (Physical, engineering or chemical process); SPN (Synthetic
    preparation); TEM (Technical or engineered material use); PREP
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(Preparation); PROC (Process); USES (Uses)

(electroluminescence; preparation and electroluminescence of iridium heteroleptic cyclometalated unsym. substituted N-heterocyclic carbene complexes as dopants for high-efficient organic light-emitting devices)

RN 952311-89-6 CAPLUS

CN Iridium, bis[(5-cyano-1,2-phenylene)(3-methyl-1H-imidazol-1-yl-2(3H)-ylidene)][(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-(CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1102763 CAPLUS

DOCUMENT NUMBER: 148:11327

TITLE: Cyclometalated and Alkoxyphenyl-Substituted Palladium

Imidazolin-2-ylidene Complexes. Synthetic, Structural,

and Catalytic Studies

AUTHOR(S): Stylianides, Neoklis; Danopoulos, Andreas A.; Pugh,

David; Hancock, Fred; Zanotti-Gerosa, Antonio

CORPORATE SOURCE: School of Chemistry, University of Southampton,

Southampton, SO17 1BJ, UK

SOURCE: Organometallics (2007), 26(23), 5627-5635

CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:11327

AB 1,3-Diarylimidazolinium salts, having one unsubstituted ortho-position of the aryl ring, [1,3-Ar2C3H5N2]X [3a-h; Ar = 2-MeC6H4, 2-iPrC6H4, 2-MeOC6H4, 4-MeOC6H4, 2,4-(MeO)2C6H3, 2-iPrOC6H4, 4-iPrOC6H4, 2,4,6-(MeO)3C6H2] were prepared by heterocyclization of the corresponding N,N'-diaryl-1,2-ethanediamines with tri-Et orthoformate. The salts 3a-g undergo deprotonation and cyclopalladation with Pd(tmeda)Me2 affording

cis-bis-carbene complexes (6), mono- and new type of "pincer" bis-ortho-metalated species (9, 8) and Pd(0) complex trans-[L2Pd] (7, HL = proligands 3). The activities of the new bis-acetato-bridged palladium ortho-metalated dimer (4) and methylpalladium mono-metalated bis-carbene [(1,3-Ar2C3H4- κ C2)[1-Ar-3-(4-MeOC6H3- κ C2')C3H4N2-

 κ C2]Pd(Me)] (9d, Ar = 4-MeOC6H4) in the Heck reaction of aryl halides were compared. At higher temps, the complexes 9d and its 2,4-dimethoxyphenyl analog (9e) show low activity in the coupling of aryl chlorides.

IT 957476-14-1P 957476-15-2P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(crystal structure; preparation, structure and catalytic activity of palladium ortho-metalated 1,3-diaryl-2-imidazolidinylidene carbene complexes)

RN 957476-14-1 CAPLUS

CN Palladium, [1,3-bis(4-methoxyphenyl)-2-imidazolidinylidene]methyl[(5-methoxy-1,2-phenylene)[3-(4-methoxyphenyl)-1-imidazolidinyl-2-ylidene]]-, (SP-4-3)- (CA INDEX NAME)

RN 957476-15-2 CAPLUS

CN Palladium, [1,3-bis(2,4-dimethoxyphenyl)-2-imidazolidinylidene]methyl[(3,5-dimethoxy-1,2-phenylene)[3-(2,4-dimethoxyphenyl)-1-imidazolidinyl-2-ylidene]]-, (SP-4-3)- (CA INDEX NAME)

IT 957476-10-7P 957766-89-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; preparation, structure and catalytic activity of

CN

palladium ortho-metalated 1,3-diaryl-2-imidazolidinylidene carbene complexes) 957476-10-7 CAPLUS

RN

Palladium, [1,3-bis[2-(1-methylethyl)phenyl]-2imidazolidinylidene]chloro[[6-(1-methylethyl)-1,2-phenylene][3-[3-(1methylethyl)phenyl]-1-imidazolidinyl-2-ylidene]]-, (SP-4-4)- (CA INDEX NAME)

957766-89-1 CAPLUS RN

Palladium, bis[μ -(acetato- κ 0: κ 0')]bis[(3-methyl-1,2-CN phenylene)[3-(2-methylphenyl)-1-imidazolidinyl-2-ylidene]]di-, stereoisomer, compd. with methylbenzene (2:3) (CA INDEX NAME)

CM 1

957476-09-4 CRN

CMF C38 H40 N4 O4 Pd2

CCI CCS

CM 2

CRN 108-88-3 CMF C7 H8

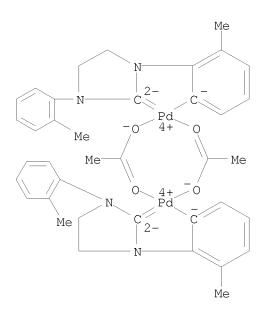
IT 957476-09-4P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(mol. structure; preparation, structure and catalytic activity of palladium ortho-metalated 1,3-diaryl-2-imidazolidinylidene carbene complexes)

RN 957476-09-4 CAPLUS

CN Palladium, bis[μ -(acetato- κ 0: κ 0')]bis[(3-methyl-1,2-phenylene)[3-(2-methylphenyl)-1-imidazolidinyl-2-ylidene]]di-, stereoisomer (CA INDEX NAME)



REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:816691 CAPLUS

DOCUMENT NUMBER: 147:177347

TITLE: Phosphor dopant host material for organic

electroluminescent device to improve light efficiency

and extend service life, its use in display and

illumination apparatus

INVENTOR(S): Otsu, Shinya; Kato, Eisaku

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007189001	A	20070726	JP 2006-4679	20060112
PRIORITY APPLN. INFO.:			JP 2006-4679	20060112
OTHER SOURCE(S):	MARPAT	147:177347		

GI

AB In an organic electroluminescent device comprising a luminescent layer sandwiched between an anode and a cathode, the device contains a compound represented by I (R1-6 = H, substituent like aromatic group, heterocycle group, carbazole group, azacarbazole group, and diphenylamino group; X1-5 = C, N) as a host material for a phosphor dopant, as an electron blocking material or as a hole blocking material. The luminescent layer contains a phosphor dopant emitting ≤ 485 nm light and having an ionization potential of ≤ 5.5 eV.

IT 943988-43-0

RL: MOA (Modifier or additive use); USES (Uses)
(phosphor dopant; phosphor dopant host material for organic
electroluminescent device to improve light efficiency and extend
service life, its use in display and illumination apparatus)

RN 943988-43-0 CAPLUS

CN Iridium, tris[(9,9-dimethyl-9H-fluorene-3,2-diyl)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (CA INDEX NAME)

L4 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

Page 77

ACCESSION NUMBER: 2006:1337747 CAPLUS

DOCUMENT NUMBER: 146:62927

TITLE: Process for acid-catalyzed coordinative isomerization

of electroluminescent platinum-group metal

cyclometalated N-heterocyclic carbene complexes

INVENTOR(S):
Molt, Oliver; Kahle, Klaus

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 40pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIND DATE					APPL:			DATE				
WC	2006134113				A1 20061221							20060613					
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KM,	KN,	KP,	KR,
		KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
		MZ,	NA,	NG,	NI,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
		SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
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		IS,	ΙΤ,	LT,	LU,	LV,	MC,	ΝL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
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	DE 102005027548												3 20050614				
EP	EP 1899359																
	R:						CZ,										IE,
							LV,										
							2008	0821	US 2007-916455								
PRIORIT	PRIORITY APPLN. INFO.:								DE 2005-102005027548								
						WO 2006-EP63165 V								₩ 2	0060	613	
OTHER S	OTHER SOURCE(S):						CASREACT 146:62927; MARPAT 146:62927										

$$\begin{bmatrix} Q^1 - Q^2 \\ N & Y^1 \\ Q^3 & Y^2 \end{bmatrix}_{\mathbf{x}}$$

GΙ

Ι

A process for coordinative isomerization, preferably mer-fac-isomerization AΒ of cyclometalated carbene complexes I [M = Pd, Pt, Ru,Os, Co, Rh, Ir, preferably M = Ir(III), x = 2, 3; Q3 = NR, 0, S, PR1; Q1-Q2C:C =optionally substituted or annelated 1,2-phenylene, furandiyl, thiophenediyl, pyrrolediyl, pyrazolediyl, isothiazolediyl, isoxazolediyl, thiazolediyl, oxazolediyl, imidazolediyl, pyridinediyl, pyridazinediyl; pyrimidinediyl, pyrazinediyl; Y1 = Y2 = H, alkyl, alkenyl, (hetero)aryl, alkoxy, aryloxy, alkylthio, arylthio, acyl, carboxy, ester, sulfono, sulfonate, halo, CN, CHO, NO2, NO; Y1-Y2 = optionally annelated or substituted benzo], useful as luminescent materials for organic light-emitting devices (no data), comprises reaction of the compds. I with 10-5-10-1 M Bronsted acid in a solvent, preferably water, C1-4 alc., ketone, esters, halogenated hydrocarbons, DMF, DMSO. In an example, 27 μ mol of the complex mer-I (Q1-Q2 = CH:C(CN):CHCH, Q3 - NMe, Y1 = Y2 = H; M = Ir, x = 3) was isomerized to a mixture, containing 75% of fac-I and 25% of the starting mer-I by refluxing in 9.75 mL of acetone with addition of 0.25 mL of 0.1 M aqueous HCl for 4 h.

IT 916910-74-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(process for Bronsted acid-catalyzed coordinative mer-fac-isomerization
of iridium cyclometalated carbene imidazolylidene electroluminescent
complexes)

RN 916910-74-2 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, (OC-6-21)- (CA INDEX NAME)

IT 913636-78-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (process for Bronsted acid-catalyzed coordinative mer-fac-isomerization of iridium cyclometalated carbene imidazolylidene electroluminescent complexes)

RN 913636-78-9 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, (OC-6-22)- (CA INDEX NAME)

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 29 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN SSION NUMBER: 2006:1147668 CAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER: 145:480101

TITLE: Organic electroluminescent device

Murakami, Takeshi; Yagi, Kazunari; Ichijima, Seiji; Igarashi, Tatsuya; Satou, Tasuku INVENTOR(S):

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 122pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIN	D .	DATE		j	APPL:	ICAT	ION 1	DATE					
WO	2006		A1 20061102			1	WO 2	006-	JP30	20060425								
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	KN,	KP,	KR,	KΖ,	
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	
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		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,	
		GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
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JP	2007	0962	59		А		20070412			JP 2	006-	1195	20060424					
					A1		2008	0109		EP 2	006-	7459	92	20060425				
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		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
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ORIT	Y APP	LN.	INFO	.:						JP 2	005-	1262	62	Ž	A 2	0050	425	

JP 2005-247418 A 20050829 WO 2006-JP309142 W 20060425

OTHER SOURCE(S): MARPAT 145:480101

GΙ

RN

AB An organic electroluminescent device is described comprising a pair of electrodes; and at least one organic layer between the pair of electrodes, where the at least one organic layer contains a specific compound with a general formula I (M = a transition metal atom/ion; R11, R12 = (independently) H, a substituent group, R11, R12 may be independently bonded to M or be cyclic; L11 = (ligand) may be bonded to at least one of R11, and R12; X11 = a counter ion; n11 = (integer)0-5; n12 = (integer)1-6; n13 = (integer) 0-3; C = (carbene carbon)may be bonded to R11 and R12 to coordinate with M) in which a transition metal and a carbene carbon are bonded to each other.

IT 913611-59-3P 913636-78-9P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)
(organic electroluminescent device having transition metal complex layer)
913611-59-3 CAPLUS

CN Rhodium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, (OC-6-22)- (CA INDEX NAME)

RN 913636-78-9 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, (OC-6-22)- (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 30 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

2006:714501 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:428680

TITLE: Efficient deep blue triplet emitters for OLEDs AUTHOR(S): Erk, Peter; Bold, Markus; Egen, Martina; Fuchs, Evelyn; Gessner, Thomas; Kahle, Klaus; Lennartz, Christian; Molt, Oliver; Nord, Simon; Reichelt,

Helmut; Schildknecht, Christian; Johannes,

Hans-Herrmann; Kowalsky, Wolfgang

BASF Aktiengesellschaft, Ludwigshafen, 67056, Germany CORPORATE SOURCE:

SOURCE: Digest of Technical Papers - Society for Information

Display International Symposium (2006), 37(Bk. 1),

131-134

CODEN: DTPSDS

PUBLISHER: Society for Information Display

DOCUMENT TYPE: Journal LANGUAGE: English

Cyclometallated iridium carbene complexes are introduced as efficient blue triplet emitters. Quantum mech. calcns. have been used to design and to optimize this class of materials predominantly with respect to color coordinates and luminescence quantum yield. To complete the set of materials required for deep blue OLED devices we engineered suitable host and blocker materials for the use in combination with large triplet energy carbene emitters. These tailor-made materials were applied to develop deep blue electroluminescent devices with excellent efficiency.

888725-36-8 ΤT

> RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(efficient deep blue triplet emitter for organic light-emitting diode)

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-(9CI) (CA INDEX NAME)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:632152 CAPLUS

DOCUMENT NUMBER: 145:112952

TITLE: Metal complexes with nucleophilic carbene ligands and

devices and processes using them

INVENTOR(S): Pretot, Roger; Van Der Schaaf, Paul Adriaan; Schmidt,

Jemima; Schmidhalter, Beat; Schaefer, Thomas;

Lamatsch, Bernd

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 149 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

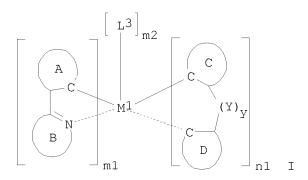
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIN							DATE		j		ICAT	DATE					
WO 2006067074					A1	20060629			1			20051214					
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	KP,	KR,
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		KG,	KΖ,	MD,	RU,	ΤJ,	$_{\mathrm{TM}}$										
CA	2589	711			A1		2006	0629	(CA 2	005-		20051214				
EP	1841	834			A1		2007	1010		EP 2	005-		20051214				
EP	1841	834			В1		2009	0506									
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,

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IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
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PRIORITY APPLN. INFO.:
                                             EP 2004-106916
                                                                  A 20041223
                                             WO 2005-EP56767
                                                                  W 20051214
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OTHER SOURCE(S): MARPAT 145:112952



AB The title complexes are described by the general formula I (ring A = an optionally substituted aryl group which can optionally contain heteroatoms; ring B = an optionally substituted nitrogen-containing aryl group, which can optionally contain further heteroatoms; ring A and ring B may be bonded to form a ring; group C = an acyclic carbene or a cyclic carbene which can optionally contain heteroatoms; ring D = an optionally substituted aryl group which can optionally contain heteroatoms; n1 = 1 = 3, m1 = 0, 1, or 2; m2 = 0 or 1; M1 = a metal with an atomic weight > 40; L3 =

monodentate or bidentate ligand; Y = -C(=0) or -C(X1)2-; X1 = H or C1-4 alkyl; and y = 0 or 1) with the exception of certain specified compds. The use of the compds. is described in electronic devices, especially organic light-emitting diodes, as oxygen-sensitive indicators, as phosphorescent indicators in bioassays, and as catalysts. Organic electronic devices, especially

organic light-emitting diodes, comprising an emitting layer which comprises the compds., as well as displays employing the light-emitting diodes, are also described.

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IT 847049-63-2 895527-79-4 895527-80-7
895527-81-8 895527-82-9 895527-83-0
895527-84-1 895527-85-2 895527-86-3
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     895552-22-4
     RL: DEV (Device component use); USES (Uses)
        (metal complexes with nucleophilic carbene ligands and devices and
        processes using them)
RN
     847049-63-2 CAPLUS
CN
     Iridium, tris[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI)
     (CA INDEX NAME)
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RN 895527-80-7 CAPLUS CN Platinum, [2',3',4',5',6'-pentafluoro-4-(2-pyridinyl-\kappaN)[1,1'-biphenyl]-3-yl-\kappaC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-
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Page 86

ylidene)]- (9CI) (CA INDEX NAME)

RN 895527-81-8 CAPLUS

CN Platinum, [2-methyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

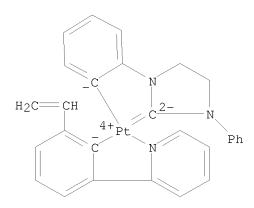
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RN 895527-82-9 CAPLUS

CN Platinum, [4-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895527-83-0 CAPLUS

CN Platinum, [2-ethenyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895527-84-1 CAPLUS

CN Platinum, [4-ethenyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895527-85-2 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][3-(2-pyridinyl- κ N)[1,1'-biphenyl]-2-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-86-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-87-4 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895527-88-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-4,6-bis(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-89-6 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-90-9 CAPLUS

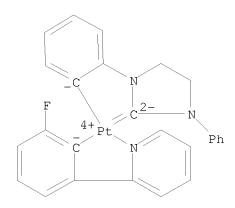
CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-91-0 CAPLUS

CN Platinum, [4-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895527-92-1 CAPLUS

CN Platinum, [2-fluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895527-93-2 CAPLUS

CN Platinum, [2,4-difluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895527-94-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-6-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-95-4 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-4-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895527-96-5 CAPLUS

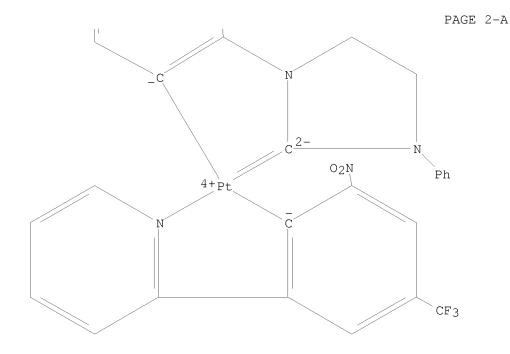
CN Platinum, [4-nitro-2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN895527-97-6 CAPLUS

Platinum, [2-nitro-6-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME) CN



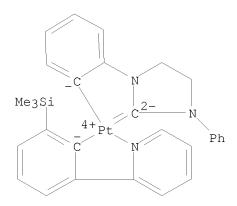


RN 895527-98-7 CAPLUS CN Platinum, [4-cyano-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-00-4 CAPLUS CN Platinum, [2-cyano-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-01-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-6-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)



RN 895528-02-6 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-4-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

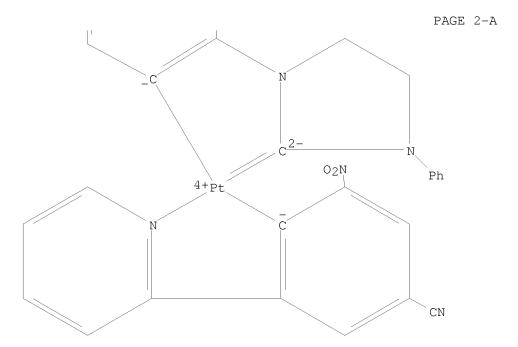
RN 895528-03-7 CAPLUS

CN Platinum, [2-cyano-4-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-04-8 CAPLUS

CN Platinum, [4-cyano-2-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

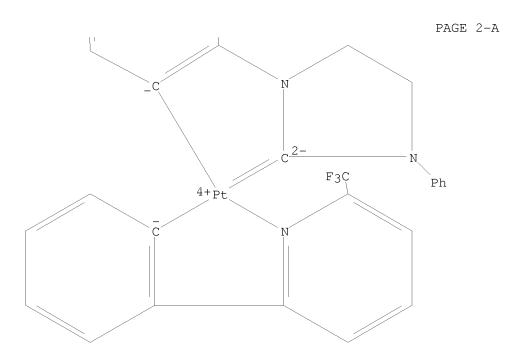




RN 895528-05-9 CAPLUS CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-[6-

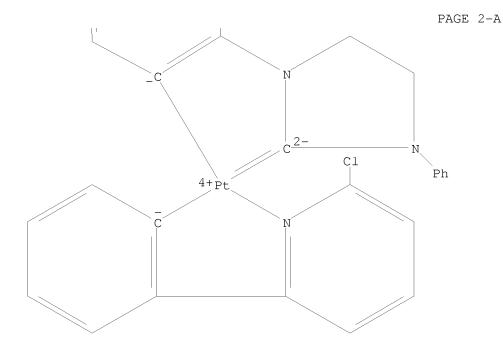
(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)





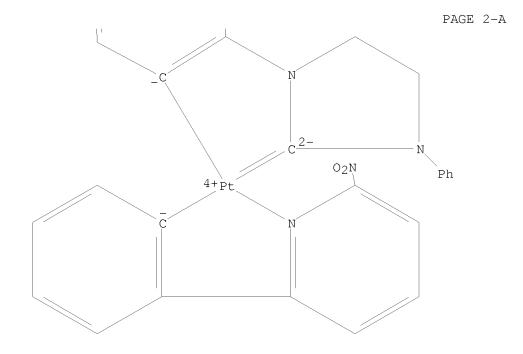
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RN 895528-06-0 CAPLUS CN Platinum, [2-(6-chloro-2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)
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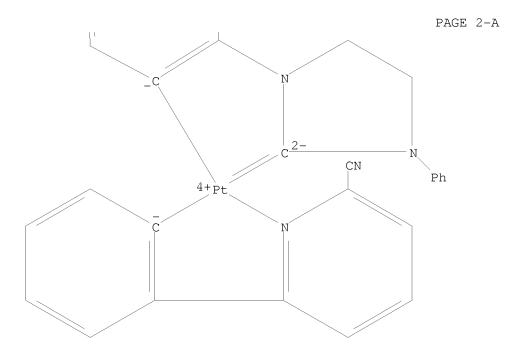
RN 895528-07-1 CAPLUS CN Platinum, [2-(6-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)





RN 895528-08-2 CAPLUS CN Platinum, [2-(6-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

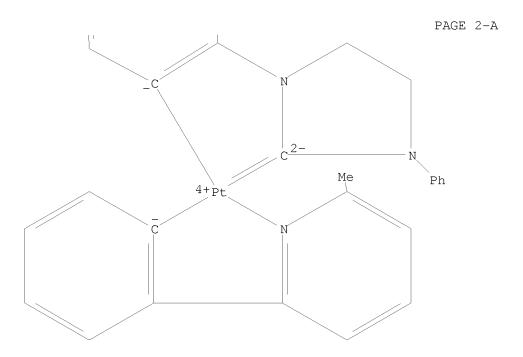




RN 895528-09-3 CAPLUS CN Platinum, [2-(6-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-

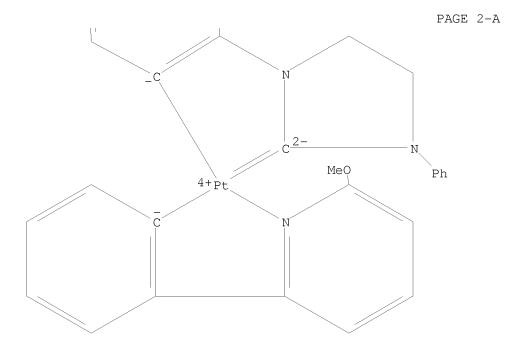
phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)





RN 895528-10-6 CAPLUS CN Platinum, [2-(6-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

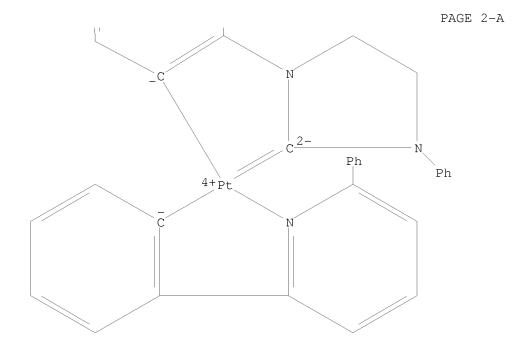




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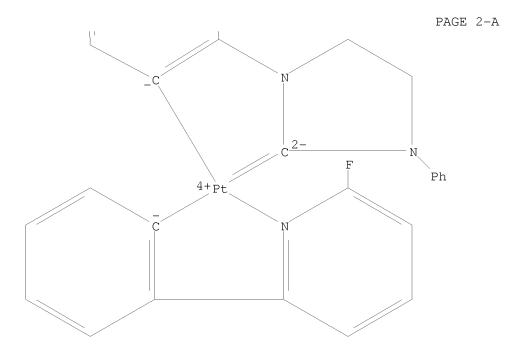
895528-11-7 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(6-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME) CN





RN 895528-12-8 CAPLUS CN Platinum, [2-(6-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)





RN 895528-13-9 CAPLUS CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-[3-

(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-14-0 CAPLUS

CN Platinum, [2-(3-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-15-1 CAPLUS

CN Platinum, [2-(3-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-16-2 CAPLUS

Platinum, [2-(3-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-17-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-18-4 CAPLUS

CN Platinum, [2-(3-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-19-5 CAPLUS

CN Platinum, [2-(3-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN

895528-20-8 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-[4-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX CN

RN 895528-21-9 CAPLUS

CN Platinum, [2-(4-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-22-0 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-23-1 CAPLUS

CN Platinum, [2-(5-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-24-2 CAPLUS

CN Platinum, [2-(5-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-25-3 CAPLUS

CN Platinum, [2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-26-4 CAPLUS

CN Platinum, [2-[4-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-27-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(5-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-28-6 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(4-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-29-7 CAPLUS

CN Platinum, [3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-31-1 CAPLUS

CN Platinum, [5-fluoro-2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-32-2 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-33-3 CAPLUS

CN Platinum, [4-[dimethyl(tridecafluorohexyl)silyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

$$\frac{1}{2}$$
 $\frac{1}{2}$
 $\frac{1}$

RN 895528-35-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][5-fluoro-2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-36-6 CAPLUS

CN Platinum, [2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]-5- (trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidne)]- (9CI) (CA INDEX NAME)

RN 895528-37-7 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-38-8 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-4-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-39-9 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-40-2 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-4-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-41-3 CAPLUS

CN Platinum, [4-cyano-3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-42-4 CAPLUS

CN Platinum, [2-(4-methoxy-2-pyridinyl- κ N)-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

$$rac{-c}{c}$$
 $rac{A+Pt}{c}$
 $rac{2-N}{C}$
 $rac{A+Pt}{C}$
 $rac{A+P$

RN 895528-43-5 CAPLUS

CN Platinum, [2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-difluorophenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-44-6 CAPLUS

CN Platinum, [4-cyano-2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-difluorophenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & &$$

RN 895528-45-7 CAPLUS

CN Platinum, $[2-[4-(dimethylamino)-2-pyridinyl-\kappa N]-3,5-bis(trifluoromethyl)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895528-46-8 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-quinolinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895528-47-9 CAPLUS

CN Platinum, [5-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-48-0 CAPLUS

CN Platinum, [5-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-49-1 CAPLUS

CN Platinum, $[5-(dimethylamino)-2-(2-quinolinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895528-50-4 CAPLUS

CN Platinum, [4-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-51-5 CAPLUS

CN Platinum, [4-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-52-6 CAPLUS

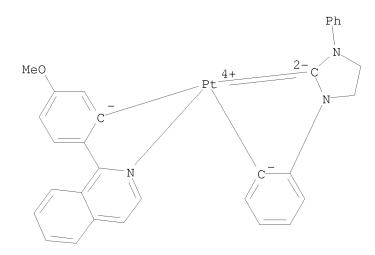
CN Platinum, $[4-(dimethylamino)-2-(2-quinolinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895528-53-7 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)-5-methylphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-54-8 CAPLUS

CN Platinum, $[2-(1-isoquinolinyl-\kappa N)-5-methoxyphenyl-\kappa C]$ [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

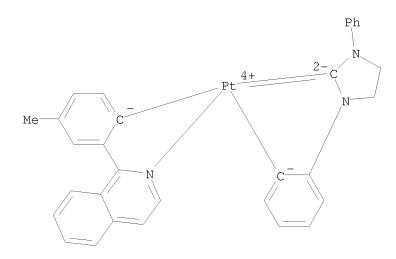


RN 895528-56-0 CAPLUS

CN Platinum, [5-(dimethylamino)-2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-58-2 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)-4-methylphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895528-60-6 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)-4-methoxyphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895528-62-8 CAPLUS

CN Platinum, [4-(dimethylamino)-2-(1-isoquinolinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-49-1 CAPLUS

CN Platinum, bis[1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895530-50-4 CAPLUS

CN Platinum, bis[(5-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-51-5 CAPLUS

CN Platinum, bis[(5-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-52-6 CAPLUS

CN Platinum, bis[[5-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-53-7 CAPLUS

CN Platinum, bis[[5-(1-methylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-54-8 CAPLUS

CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-55-9 CAPLUS

CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-56-0 CAPLUS

CN Platinum, bis[(5-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-57-1 CAPLUS

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CN Platinum, bis[(5-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-58-2 CAPLUS

CN Platinum, bis[(5-phenoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-59-3 CAPLUS

CN Platinum, bis[(5-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-60-6 CAPLUS

CN Platinum, bis[[5-(methylthio)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-61-7 CAPLUS

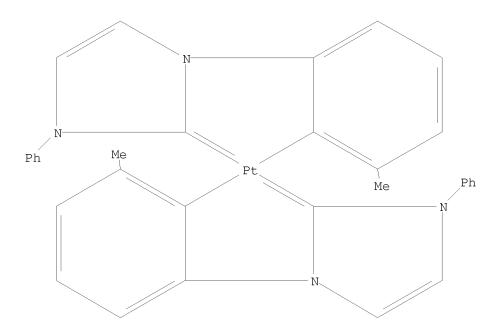
CN Platinum, bis[[5-(methoxycarbonyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-62-8 CAPLUS

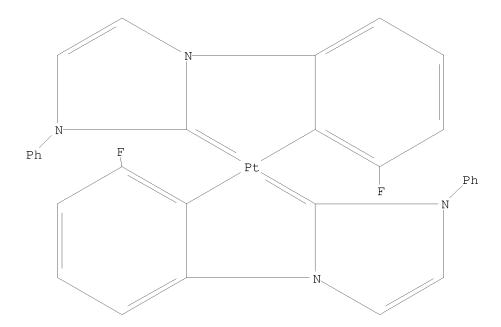
CN Platinum, bis[[5-(methylsulfonyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-63-9 CAPLUS

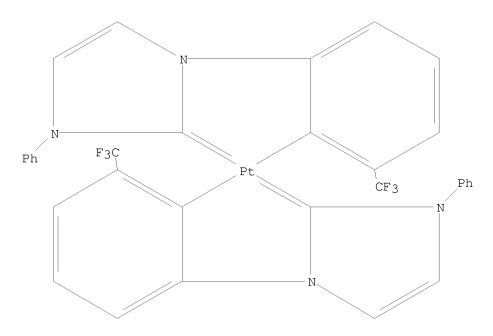
CN Platinum, bis[(6-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



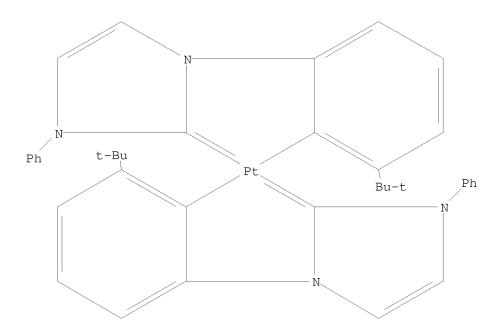
RN 895530-64-0 CAPLUS
CN Platinum, bis[(6-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



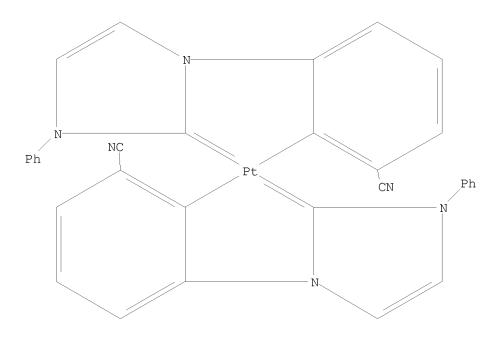
RN 895530-65-1 CAPLUS
CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[3-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)



RN 895530-66-2 CAPLUS
CN Platinum, bis[[6-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

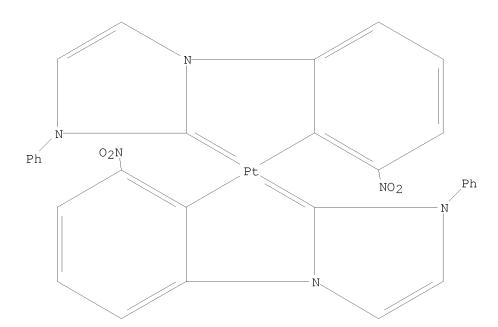


RN 895530-67-3 CAPLUS
CN Platinum, bis[(6-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



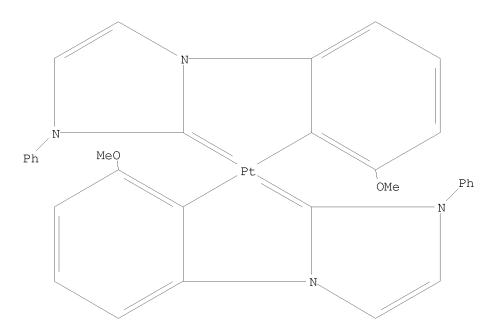
RN 895530-68-4 CAPLUS

CN Platinum, bis[(6-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895530-69-5 CAPLUS

CN Platinum, bis[(6-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895530-70-8 CAPLUS

CN Platinum, bis[(4-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-71-9 CAPLUS

CN Platinum, bis[(4-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-72-0 CAPLUS

CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[5-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-73-1 CAPLUS

CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[5-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-74-2 CAPLUS

CN Platinum, bis[(4-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-75-3 CAPLUS

CN Platinum, bis[(4-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895530-76-4 CAPLUS

CN Platinum, bis[(4-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-77-5 CAPLUS

CN Platinum, bis[[4-(methylthio)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-78-6 CAPLUS

CN Platinum, bis[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4'-(trifluoromethyl)[1,1'-biphenyl]-4,3-diyl]]- (9CI) (CA INDEX NAME)

RN 895530-79-7 CAPLUS

CN Platinum, bis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-80-0 CAPLUS

CN Platinum, bis[(5-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-81-1 CAPLUS

CN Platinum, bis[(5-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-82-2 CAPLUS

CN Platinum, bis[[5-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-83-3 CAPLUS

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CN Platinum, bis[[5-(1-methylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-84-4 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[4-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-85-5 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[4-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895530-86-6 CAPLUS

CN Platinum, bis[(5-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-87-7 CAPLUS

CN Platinum, bis[(5-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-88-8 CAPLUS

CN Platinum, bis[(5-phenoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-89-9 CAPLUS

CN Platinum, bis[(5-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-90-2 CAPLUS

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CN Platinum, bis[[5-(methylthio)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-91-3 CAPLUS

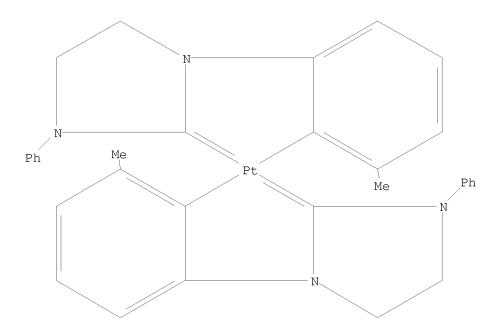
CN Platinum, bis[[5-(methoxycarbonyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895530-92-4 CAPLUS

CN Platinum, bis[[5-(methylsulfonyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

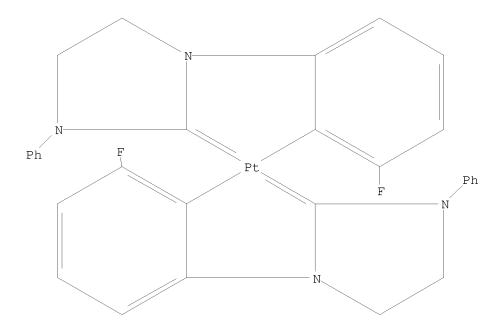
RN 895530-93-5 CAPLUS

CN Platinum, bis[(6-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



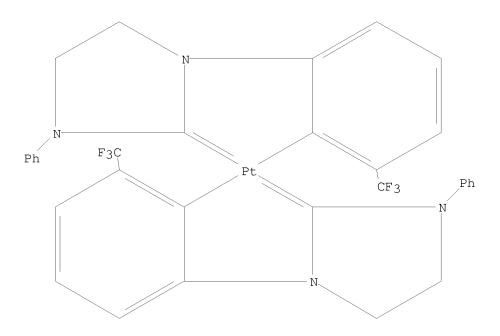
RN 895530-94-6 CAPLUS

CN Platinum, bis[(6-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



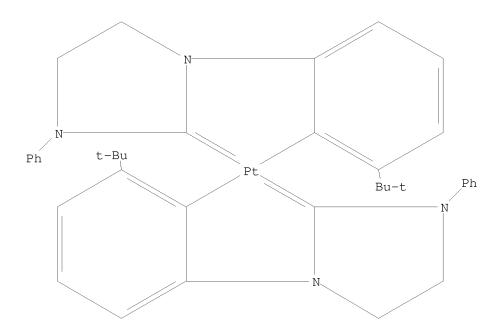
RN 895530-95-7 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[3-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)



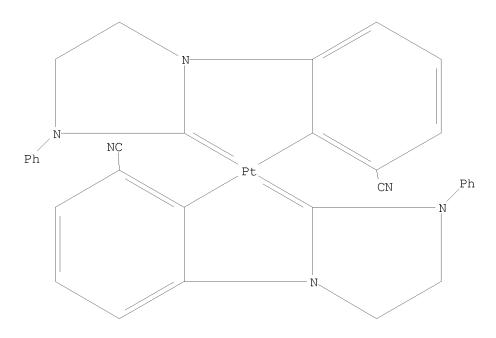
RN 895530-96-8 CAPLUS

CN Platinum, bis[[6-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



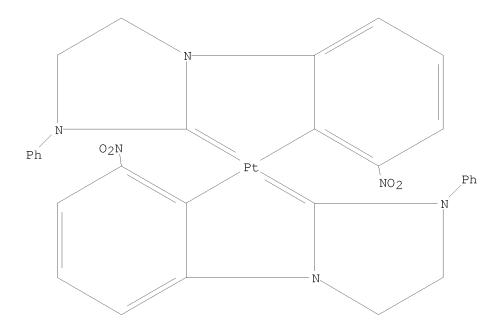
RN 895530-97-9 CAPLUS

CN Platinum, bis[(6-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



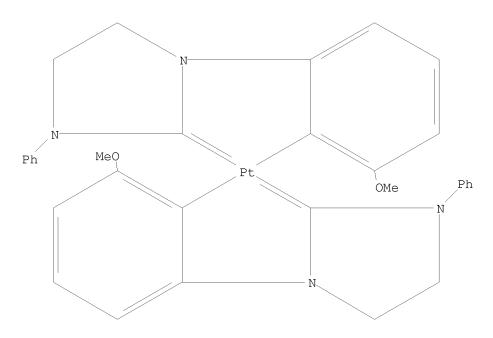
RN 895530-98-0 CAPLUS

CN Platinum, bis[(6-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895530-99-1 CAPLUS

CN Platinum, bis[(6-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895531-00-7 CAPLUS

CN Platinum, bis[(4-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895531-01-8 CAPLUS

CN Platinum, bis[(4-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895531-02-9 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[5-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895531-03-0 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[5-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895531-04-1 CAPLUS

CN Platinum, bis[(4-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895531-05-2 CAPLUS

CN Platinum, bis[(4-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895531-06-3 CAPLUS

CN Platinum, bis[(4-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895531-07-4 CAPLUS

CN Platinum, bis[[4-(methylthio)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895531-08-5 CAPLUS

CN Platinum, bis[(3-phenyl-1-imidazolidinyl-2-ylidene)[4'-(trifluoromethyl)[1,1'-biphenyl]-4,3-diyl]]- (9CI) (CA INDEX NAME)

RN 895551-13-0 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-14-1 CAPLUS

CN Iridium, bis[5-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-15-2 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-16-3 CAPLUS

CN Iridium, bis[5-(1,1-dimethylethyl)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-17-4 CAPLUS

CN Iridium, bis[5-cyclohexyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-18-5 CAPLUS

CN Iridium, bis[5-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-19-6 CAPLUS

CN Iridium, bis[5-methoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-20-9 CAPLUS

CN Iridium, bis[5-phenoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-21-0 CAPLUS

CN Iridium, bis[5-hydroxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-22-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-5-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-23-2 CAPLUS

CN Iridium, bis[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)- ylidene)]- (9CI) (CA INDEX NAME)

CN pyridinyl- κ N)-5-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

895551-25-4 CAPLUS RN

Iridium, bis $[5-(methylthio)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-$ CN phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-26-5 CAPLUS

CN Iridium, bis[5-(methylsulfonyl)-2-(2-pyridinyl-kN)phenylkC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-27-6 CAPLUS

CN Iridium, bis[5-(methylsulfinyl)-2-(2-pyridinyl-kN)phenylkC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-28-7 CAPLUS

CN Iridium, bis[5-mercapto-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-29-8 CAPLUS

CN Iridium, bis[5-nitro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-30-1 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(2-pyridinyl-kN)phenylkC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-31-2 CAPLUS

CN Iridium, bis[5-amino-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-32-3 CAPLUS

CN Iridium, bis[5-(acetylamino)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-33-4 CAPLUS

CN Iridium, bis[5-[(methylsulfonyl)amino]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-34-5 CAPLUS

CN Iridium, bis[5-(ethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-35-6 CAPLUS

CN Iridium, bis[5-formyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-36-7 CAPLUS

CN Iridium, bis[5-(hydroxymethyl)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-37-8 CAPLUS

CN Iridium, bis[5-(bromomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-38-9 CAPLUS

CN Iridium, bis[5-(cyanomethyl)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-39-0 CAPLUS

CN Iridate(2-), bis[5-(carboxylatomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]-, dihydrogen (9CI) (CA INDEX NAME)

●2 H+

RN 895551-40-3 CAPLUS

CN Iridium, bis[5-(methoxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-41-4 CAPLUS

CN Iridium, bis[5-[(diethylamino)methyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-42-5 CAPLUS

CN Iridium, bis[5-(3-methoxy-3-oxo-1-propenyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-43-6 CAPLUS

CN Iridium, bis[5-(3-methoxy-3-oxopropyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN CN

895551-44-7 CAPLUS Iridium, bis[2',3',4',5',6'-pentafluoro-4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895551-45-8 CAPLUS

CN Iridium, bis[2-methyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-46-9 CAPLUS

CN Iridium, bis[4-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-47-0 CAPLUS

CN Iridium, bis[2-ethenyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-

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phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-48-1 CAPLUS

CN Iridium, bis[4-ethenyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-49-2 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-2-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-50-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-51-6 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-52-7 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-4,6-bis(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-53-8 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-54-9 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-55-0 CAPLUS

CN Iridium, bis[4-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-56-1 CAPLUS

CN Iridium, bis[2-fluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-57-2 CAPLUS

CN Iridium, bis[2,4-difluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-58-3 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-59-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-60-7 CAPLUS

CN Iridium, bis[4-nitro-2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-61-8 CAPLUS

CN Iridium, bis[2-nitro-6-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-62-9 CAPLUS

CN Iridium, bis[4-cyano-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-63-0 CAPLUS

CN Iridium, bis[2-cyano-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-64-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-65-2 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-66-3 CAPLUS

CN Iridium, bis[2-cyano-4-nitro-6-(2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-67-4 CAPLUS

CN Iridium, bis[4-cyano-2-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-68-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-[6-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-69-6 CAPLUS

CN Iridium, bis[2-(6-chloro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-70-9 CAPLUS

CN Iridium, bis[2-(6-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-71-0 CAPLUS

CN Iridium, bis[2-(6-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-72-1 CAPLUS

CN Iridium, bis[2-(6-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-73-2 CAPLUS

CN Iridium, bis[2-(6-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN

895551-74-3 CAPLUS Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(6-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME) CN

RN 895551-75-4 CAPLUS

CN Iridium, bis[2-(6-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-76-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-[3-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-77-6 CAPLUS

CN Iridium, bis[2-(3-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-78-7 CAPLUS

CN Iridium, bis[2-(3-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-79-8 CAPLUS

CN Iridium, bis[2-(3-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-80-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-81-2 CAPLUS

CN Iridium, bis[2-(3-fluoro-2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-82-3 CAPLUS

CN Iridium, bis[2-(3-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-83-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-[4-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-84-5 CAPLUS

CN Iridium, bis[2-(4-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-85-6 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-86-7 CAPLUS

CN Iridium, bis[2-(5-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-87-8 CAPLUS

CN Iridium, bis[2-(5-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-88-9 CAPLUS

CN Iridium, bis[2-[5-(pentafluorophenyl)-2-pyridinyl-\kappaN]phenyl-\kappaC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895551-89-0 CAPLUS

CN Iridium, bis[2-[4-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-90-3 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(5-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-91-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(4-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895551-92-5 CAPLUS

CN Iridium, bis[3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-93-6 CAPLUS

CN Iridium, bis[5-fluoro-2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-94-7 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-95-8 CAPLUS

CN Iridium, bis[4-[dimethyl(tridecafluorohexyl)silyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)- ylidene)]- (9CI) (CA INDEX NAME)

RN 895551-97-0 CAPLUS

CN Iridium, bis[5-fluoro-2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895551-98-1 CAPLUS

CN Iridium, bis[2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]-5- (trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895552-00-8 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-

1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895552-02-0 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-4-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895552-04-2 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895552-05-3 CAPLUS CN Iridium, bis[2',3',4',5',6'-pentafluoro-4-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895552-07-5 CAPLUS
CN Iridium, bis[4-cyano-3,5-difluoro-2-(4-methoxy-2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI)
(CA INDEX NAME)

RN 895552-09-7 CAPLUS

CN Iridium, bis[2-(4-methoxy-2-pyridinyl- κ N)-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-11-1 CAPLUS

CN Iridium, bis[2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-difluorophenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-13-3 CAPLUS

CN Iridium, bis[4-cyano-2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-difluorophenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-15-5 CAPLUS

CN Iridium, bis[2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-17-7 CAPLUS

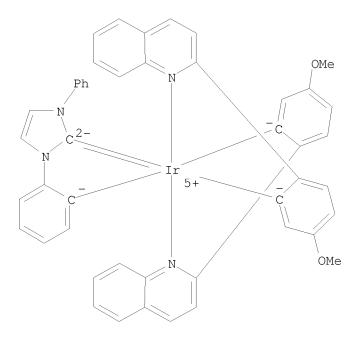
CN Iridium, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[2-(2-quinolinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-18-8 CAPLUS

CN Iridium, bis[5-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-19-9 CAPLUS

CN Iridium, bis[5-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895552-20-2 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl-

 κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-21-3 CAPLUS

CN Iridium, bis[4-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-22-4 CAPLUS CN Iridium, bis[4-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

ΙT 895552-23-5 895552-24-6 895552-25-7 895552-26-8 895552-27-9 895552-28-0 895552-29-1 895552-30-4 895552-31-5 895552-32-6 895552-33-7 895552-34-8 895552-35-9 895552-36-0 895552-37-1 895552-38-2 895552-39-3 895552-40-6 895552-41-7 895552-42-8 895552-43-9 895552-44-0 895552-45-1 895552-46-2 895552-47-3 895552-48-4 895552-49-5 895552-50-8 895552-51-9 895552-52-0 895552-53-1 895552-54-2 895552-55-3 895552-56-4 895552-57-5 895552-58-6 895552-59-7 895552-60-0 895552-61-1 895552-62-2 895552-63-3 895552-64-4 895552-65-5 895552-66-6 895552-67-7 895552-68-8 895552-69-9 895552-70-2 895552-71-3 895552-72-4 895552-73-5 895552-74-6 895552-75-7 895552-76-8 895552-77-9 895552-78-0 895552-79-1 895552-80-4 895552-81-5 895552-82-6 895552-83-7 895552-84-8 895552-85-9 895552-86-0 895552-87-1 895552-88-2 895552-89-3 895552-90-6 895552-91-7 895552-92-8 895552-93-9 895552-94-0 895552-95-1 895552-96-2 895552-97-3 895552-98-4 895552-99-5 895553-00-1

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895556-46-4
RL: DEV (Device component use); USES (Uses)
   (metal complexes with nucleophilic carbene ligands and devices and
   processes using them)
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RN 895552-23-5 CAPLUS

CN Iridium, bis[4-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-24-6 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-5-methylphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-25-7 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-5-methoxyphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX

NAME)

RN 895552-26-8 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-27-9 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-4-methylphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-28-0 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-4-methoxyphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895552-29-1 CAPLUS

CN Iridium, bis[4-(dimethylamino)-2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN

895552-30-4 CAPLUS Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-CN phenylene]bis[2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-31-5 CAPLUS

Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-CN phenylene]bis[5-methyl-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-32-6 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[$4-(2-pyridinyl-\kappa N)$ [1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-33-7 CAPLUS

CN Iridium, bis[5-(1,1-dimethylethyl)-2-(2-pyridinyl-kN)phenylkC][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-(9CI) (CA INDEX NAME)

RN 895552-34-8 CAPLUS

CN Iridium, bis[5-cyclohexyl-2-(2-pyridinyl-κN)phenyl-κC][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-35-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-36-0 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-methoxy-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-37-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-phenoxy-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-38-2 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-hydroxy-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-39-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-5-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-40-6 CAPLUS

CN Iridium, bis[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-41-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl-κN)-5-(trifluoromethyl)phenyl-κC]-(9CI) (CA INDEX NAME)

RN 895552-42-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(methylthio)-2-(2-pyridinyl- κ N)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-43-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(methylsulfonyl)-2-(2-pyridinyl- κ N)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-44-0 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(methylsulfinyl)-2-(2-pyridinyl- κ N)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-45-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-mercapto-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-46-2 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-nitro-2-(2-pyridinyl-κN)phenyl-κC]- (9CI) (CA INDEX NAME)

RN 895552-47-3 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-(9CI) (CA INDEX NAME)

RN 895552-48-4 CAPLUS

CN Iridium, bis[5-amino-2-(2-pyridinyl-\kappaN)phenyl-\kappaC][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-49-5 CAPLUS

CN Iridium, bis[5-(acetylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-50-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-[(methylsulfonyl)amino]-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-51-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(ethylamino)-2-(2-pyridinyl-κN)phenyl-κC]-(9CI) (CA INDEX NAME)

RN 895552-52-0 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-formyl-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-53-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(hydroxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-54-2 CAPLUS

CN Iridium, bis[5-(bromomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-55-3 CAPLUS

CN Iridium, bis[5-(cyanomethyl)-2-(2-pyridinyl-κN)phenyl-κC][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN

895552-56-4 CAPLUS Iridate(2-), bis[5-(carboxylatomethyl)-2-(2-pyridinyl- κ N)phenyl-CN κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-, dihydrogen (9CI) (CA INDEX NAME)

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895552-57-5 CAPLUS RN

Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-CN phenylene]bis[5-(methoxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-58-6 CAPLUS

CN Iridium, bis[5-[(diethylamino)methyl]-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-(9CI) (CA INDEX NAME)

RN 895552-59-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(3-methoxy-3-oxo-1-propenyl)-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-60-0 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[5-(3-methoxy-3-oxopropyl)-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-61-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2',3',4',5',6'-pentafluoro-4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

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RN 895552-62-2 CAPLUS CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-methyl-6-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-63-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[4-methyl-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-64-4 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-ethenyl-6-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-65-5 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[4-ethenyl-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-66-6 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-2-yl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-67-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-68-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2',3',4',5',6'-pentafluoro-3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-69-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl-\kappa N)-4,6-bis(trifluoromethyl)phenyl-\kappa C]- (9CI) (CA INDEX NAME)

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RN 895552-70-2 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-71-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-72-4 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[4-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI)

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(CA INDEX NAME)

RN 895552-73-5 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-fluoro-6-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-74-6 CAPLUS

CN Iridium, bis[2,4-difluoro-6-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-75-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-76-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN

895552-77-9 CAPLUS Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[4-nitro-2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl-CN κ C]- (9CI) (CA INDEX NAME)

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RN 895552-78-0 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-nitro-6-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-79-1 CAPLUS

CN Iridium, bis[4-cyano-2-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-80-4 CAPLUS

CN Iridium, bis[2-cyano-6-(2-pyridinyl-κN)phenyl-κC][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX

NAME)

RN 895552-81-5 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-6-(trimethylsilyl)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-82-6 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(2-pyridinyl- κ N)-4-(trimethylsilyl)phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-83-7 CAPLUS

CN Iridium, bis[2-cyano-4-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-84-8 CAPLUS

CN Iridium, bis[4-cyano-2-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-85-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[6-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-86-0 CAPLUS

CN Iridium, bis[2-(6-chloro-2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-87-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(6-nitro-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-88-2 CAPLUS

CN Iridium, bis[2-(6-cyano-2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-89-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(6-methyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-90-6 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(6-methoxy-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-91-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(6-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-92-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(6-fluoro-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-93-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[3-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895552-94-0 CAPLUS

CN Iridium, bis[2-(3-cyano-2-pyridinyl- κ N)phenyl- κ C][(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]- (9CI) (CA INDEX NAME)

RN 895552-95-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(3-nitro-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-96-2 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(3-methyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-97-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-98-4 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(3-fluoro-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895552-99-5 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(3-methoxy-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-00-1 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[4-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895553-01-2 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(4-methyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-02-3 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]-(9CI) (CA INDEX NAME)

RN 895553-03-4 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(5-methyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-04-5 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(5-fluoro-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN

895553-05-6 CAPLUS Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME) CN

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RN 895553-06-7 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-[4-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-07-8 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(5-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-08-9 CAPLUS

CN Iridium, [(3,5-diphenyl-1H-imidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]bis[2-(4-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-09-0 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-10-3 CAPLUS

CN Iridium, bis[5-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-11-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-12-5 CAPLUS

CN Iridium, bis $[5-(1,1-dimethylethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895553-13-6 CAPLUS

CN Iridium, bis[5-cyclohexyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-14-7 CAPLUS

CN Iridium, bis[5-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-15-8 CAPLUS

CN Iridium, bis[5-methoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-16-9 CAPLUS

CN Iridium, bis[5-phenoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-17-0 CAPLUS

CN Iridium, bis[5-hydroxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-18-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-5-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-19-2 CAPLUS

CN Iridium, bis[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2- ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-20-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-5-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-21-6 CAPLUS

CN Iridium, bis[5-(methylthio)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-22-7 CAPLUS

CN Iridium, bis[5-(methylsulfonyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-23-8 CAPLUS

CN Iridium, bis[5-(methylsulfinyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-24-9 CAPLUS

CN Iridium, bis[5-mercapto-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-25-0 CAPLUS

CN Iridium, bis[5-nitro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-26-1 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-27-2 CAPLUS

CN Iridium, bis[5-amino-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-28-3 CAPLUS

CN Iridium, bis[5-(acetylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-29-4 CAPLUS

CN Iridium, bis[5-[(methylsulfonyl)amino]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-30-7 CAPLUS

CN Iridium, bis[5-(ethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-31-8 CAPLUS

CN Iridium, bis[5-formyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-32-9 CAPLUS

CN Iridium, bis[5-(hydroxymethyl)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-33-0 CAPLUS

CN Iridium, bis[5-(bromomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-34-1 CAPLUS

CN Iridium, bis[5-(cyanomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-35-2 CAPLUS

CN Iridate(2-), bis[5-(carboxylatomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, dihydrogen (9CI) (CA INDEX NAME)

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RN 895553-36-3 CAPLUS

CN Iridium, bis[5-(methoxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-37-4 CAPLUS

CN Iridium, bis[5-[(diethylamino)methyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-38-5 CAPLUS

CN Iridium, bis[5-(3-methoxy-3-oxo-1-propeny1)-2-(2-pyridiny1- κ N)pheny1- κ C][1,2-phenylene(3-phenyl-1-imidazolidiny1-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-39-6 CAPLUS

CN Iridium, bis[5-(3-methoxy-3-oxopropy1)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN

895553-40-9 CAPLUS Iridium, bis[2',3',4',5',6'-pentafluoro-4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME) CN

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RN 895553-41-0 CAPLUS

CN Iridium, bis[2-methyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-42-1 CAPLUS

CN Iridium, bis[4-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-43-2 CAPLUS

CN Iridium, bis[2-ethenyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-44-3 CAPLUS

CN Iridium, bis[4-ethenyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-45-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-2-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-46-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-47-6 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-48-7 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-4,6-bis(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-49-8 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-50-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-51-2 CAPLUS

CN Iridium, bis[4-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-52-3 CAPLUS

CN Iridium, bis[2-fluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-53-4 CAPLUS

CN Iridium, bis[2,4-difluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-54-5 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-55-6 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-56-7 CAPLUS

CN Iridium, bis[4-nitro-2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-57-8 CAPLUS

CN Iridium, bis[2-nitro-6-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-58-9 CAPLUS

CN Iridium, bis[4-cyano-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-59-0 CAPLUS

CN Iridium, bis[2-cyano-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-60-3 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-6-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-61-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-pyridinyl- κ N)-4-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-62-5 CAPLUS

CN Iridium, bis[2-cyano-4-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-63-6 CAPLUS

CN Iridium, bis[4-cyano-2-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-64-7 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-[6-(trifluoromethyl)-(2-pyridinyl- κ N)]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-65-8 CAPLUS

CN Iridium, bis[2-(6-chloro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-66-9 CAPLUS

CN Iridium, bis[2-(6-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-67-0 CAPLUS

CN Iridium, bis[2-(6-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-68-1 CAPLUS

CN Iridium, bis[2-(6-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-69-2 CAPLUS

CN Iridium, bis[2-(6-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN

895553-70-5 CAPLUS Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(6-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME) CN

RN 895553-71-6 CAPLUS

Iridium, bis[2-(6-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME) CN

RN 895553-72-7 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-[3-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-73-8 CAPLUS

CN Iridium, bis[2-(3-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-74-9 CAPLUS

CN Iridium, bis[2-(3-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-75-0 CAPLUS

CN Iridium, bis[2-(3-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-76-1 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-77-2 CAPLUS

CN Iridium, bis[2-(3-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-78-3 CAPLUS

CN Iridium, bis[2-(3-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-79-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-[4-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-80-7 CAPLUS

CN Iridium, bis[2-(4-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-81-8 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-82-9 CAPLUS

CN Iridium, bis[2-(5-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-83-0 CAPLUS

CN Iridium, bis[2-(5-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-84-1 CAPLUS

CN Iridium, bis[2-[5-(pentafluorophenyl)-2-pyridinyl-kN]phenyl-kC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-85-2 CAPLUS

CN Iridium, bis[2-[4-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-86-3 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(5-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-87-4 CAPLUS

CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(4-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895553-88-5 CAPLUS

CN Iridium, bis[3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-89-6 CAPLUS

CN Iridium, bis[5-fluoro-2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-90-9 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-91-0 CAPLUS

CN Iridium, bis[4-[dimethyl(tridecafluorohexyl)silyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895553-93-2 CAPLUS

CN Iridium, bis[5-fluoro-2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-94-3 CAPLUS

CN Iridium, bis[2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]-5- (trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-95-4 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-

imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-96-5 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-4-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-97-6 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-3-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-98-7 CAPLUS

CN Iridium, bis[2',3',4',5',6'-pentafluoro-4-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895553-99-8 CAPLUS
CN Iridium, bis[4-cyano-3,5-difluoro-2-(4-methoxy-2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-00-4 CAPLUS

CN Iridium, bis[2-(4-methoxy-2-pyridinyl- κ N)-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-01-5 CAPLUS

CN Iridium, bis $[2-[4-(dimethylamino)-2-pyridinyl-\kappa N]-3,5-difluorophenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895554-02-6 CAPLUS

CN Iridium, bis[4-cyano-2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-difluorophenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-03-7 CAPLUS

CN Iridium, bis[2-[4-(dimethylamino)-2-pyridinyl- κ N]-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895554-04-8 CAPLUS

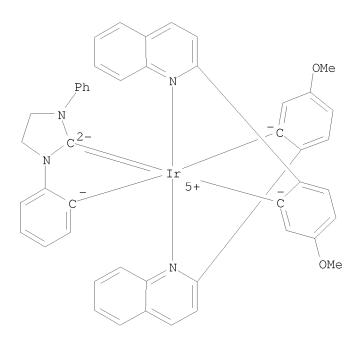
CN Iridium, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis[2-(2-quinolinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895554-05-9 CAPLUS

CN Iridium, bis[5-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-06-0 CAPLUS

CN Iridium, bis[5-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



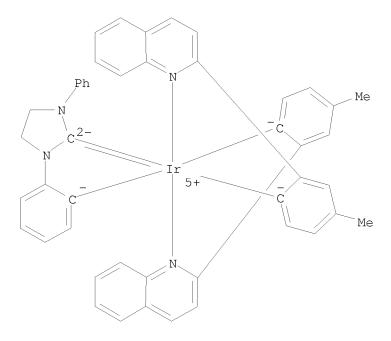
RN 895554-07-1 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA

INDEX NAME)

RN 895554-08-2 CAPLUS

CN Iridium, bis[4-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895554-09-3 CAPLUS

CN Iridium, bis[4-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-10-6 CAPLUS

CN Iridium, bis[4-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-11-7 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-5-methylphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-12-8 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-5-methoxyphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-13-9 CAPLUS

CN Iridium, bis[5-(dimethylamino)-2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-14-0 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-4-methylphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-15-1 CAPLUS

CN Iridium, bis[2-(1-isoquinolinyl- κ N)-4-methoxyphenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895554-16-2 CAPLUS

CN Iridium, bis[4-(dimethylamino)-2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-02-2 CAPLUS

CN Iridium, tris[1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-03-3 CAPLUS
CN Iridium, tris[(5-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-04-4 CAPLUS
CN Iridium, tris[(5-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-05-5 CAPLUS CN Iridium, tris[[5-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-

yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-06-6 CAPLUS

CN Iridium, tris[[5-(1-methylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-07-7 CAPLUS

CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-08-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-09-9 CAPLUS

CN Iridium, tris[(5-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-10-2 CAPLUS

CN Iridium, tris[(5-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-11-3 CAPLUS
CN Iridium, tris[(5-phenoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-12-4 CAPLUS
CN Iridium, tris[(5-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-13-5 CAPLUS

CN Iridium, tris[[5-(methylthio)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-14-6 CAPLUS

CN Iridium, tris[[5-(methoxycarbonyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-15-7 CAPLUS

CN Iridium, tris[[5-(methylsulfonyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-16-8 CAPLUS

CN Iridium, tris[(6-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-17-9 CAPLUS

CN Iridium, tris[(6-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-18-0 CAPLUS

CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[3-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-19-1 CAPLUS

CN Iridium, tris[[6-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-20-4 CAPLUS

CN Iridium, tris[(6-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-21-5 CAPLUS

CN Iridium, tris[(6-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-22-6 CAPLUS

CN Iridium, tris[(6-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-23-7 CAPLUS

CN Iridium, tris[(4-methyl-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-24-8 CAPLUS
CN Iridium, tris[(4-fluoro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-25-9 CAPLUS
CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[5-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-26-0 CAPLUS

CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[5-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-27-1 CAPLUS

CN Iridium, tris[(4-cyano-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-28-2 CAPLUS
CN Iridium, tris[(4-nitro-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-29-3 CAPLUS
CN Iridium, tris[(4-methoxy-1,2-phenylene)(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-30-6 CAPLUS

CN Iridium, tris[[4-(methylthio)-1,2-phenylene](3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-31-7 CAPLUS

CN Iridium, tris[(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)[4'- (trifluoromethyl)[1,1'-biphenyl]-4,3-diyl]]- (9CI) (CA INDEX NAME)

RN 895556-32-8 CAPLUS

CN Iridium, tris[(5-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-33-9 CAPLUS

CN Iridium, tris[(5-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-34-0 CAPLUS
CN Iridium, tris[[5-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-35-1 CAPLUS

CN Iridium, tris[[5-(1-methylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-36-2 CAPLUS

CN Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[4-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-37-3 CAPLUS

CN Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[4-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-38-4 CAPLUS

CN Iridium, tris[(5-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-39-5 CAPLUS

CN Iridium, tris[(5-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-40-8 CAPLUS

CN Iridium, tris[(5-phenoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-41-9 CAPLUS

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CN Iridium, tris[(5-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-42-0 CAPLUS

CN Iridium, tris[[5-(methylthio)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-43-1 CAPLUS

CN Iridium, tris[[5-(methoxycarbonyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-44-2 CAPLUS

CN Iridium, tris[[5-(methylsulfonyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-45-3 CAPLUS

CN Iridium, tris[(6-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-46-4 CAPLUS
CN Iridium, tris[(6-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

895556-47-5 895556-48-6 895556-49-7 895556-50-0 895556-51-1 895556-52-2 895556-53-3 895556-54-4 895556-55-5 895556-56-6 895556-57-7 895556-58-8 895556-59-9 895556-60-2 895563-91-4 895563-92-5 895563-93-6 895563-94-7 895563-95-8 895563-96-9 895563-97-0 895563-98-1 895563-99-2 895564-00-8 895564-01-9 895564-02-0 895564-03-1 895564-04-2 895564-05-3 895564-06-4 895564-07-5 895564-08-6 895564-09-7 895564-10-0 895564-11-1 895564-12-2 895564-13-3 895564-14-4 895564-15-5 895564-17-7 895564-18-8 895564-19-9 895564-21-3 895564-22-4 895564-23-5 895564-24-6 895564-25-7 895564-26-8 895564-27-9 895564-28-0 895564-29-1

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895565-21-6 895565-22-7 895565-23-8
895565-24-9 895565-25-0 895565-26-1
895565-27-2 895565-28-3 895565-29-4
895565-30-7
RL: DEV (Device component use); USES (Uses)
   (metal complexes with nucleophilic carbene ligands and devices and
  processes using them)
895556-47-5 CAPLUS
Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[3-(trifluoromethyl)-
1,2-phenylene]]- (9CI) (CA INDEX NAME)
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RN

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RN 895556-48-6 CAPLUS

CN Iridium, tris[[6-(1,1-dimethylethyl)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-49-7 CAPLUS

CN Iridium, tris[(6-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-50-0 CAPLUS

CN Iridium, tris[(6-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-51-1 CAPLUS

CN Iridium, tris[(6-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-52-2 CAPLUS

CN Iridium, tris[(4-methyl-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-53-3 CAPLUS

CN Iridium, tris[(4-fluoro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-54-4 CAPLUS

CN Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[5-(trifluoromethyl)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-55-5 CAPLUS

CN Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[5-(trifluoromethoxy)-1,2-phenylene]]- (9CI) (CA INDEX NAME)

RN 895556-56-6 CAPLUS

CN Iridium, tris[(4-cyano-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-57-7 CAPLUS

CN Iridium, tris[(4-nitro-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-58-8 CAPLUS

CN Iridium, tris[(4-methoxy-1,2-phenylene)(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-59-9 CAPLUS

CN Iridium, tris[[4-(methylthio)-1,2-phenylene](3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895556-60-2 CAPLUS

CN Iridium, tris[(3-phenyl-1-imidazolidinyl-2-ylidene)[4'- (trifluoromethyl)[1,1'-biphenyl]-4,3-diyl]]- (9CI) (CA INDEX NAME)

RN 895563-91-4 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895563-92-5 CAPLUS

CN Platinum, [5-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} -C & N \\ \hline & \\ C^{2-} & N-Ph \\ \hline & \\ N & \hline & \\ \end{array}$$

RN 895563-93-6 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]bis[4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895563-94-7 CAPLUS

CN Platinum, $[5-(1,1-dimethylethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]-(9CI)(CA INDEX NAME)$

RN 895563-95-8 CAPLUS

CN Platinum, [5-cyclohexyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895563-96-9 CAPLUS

CN Platinum, [5-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895563-97-0 CAPLUS

CN Platinum, [5-methoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895563-98-1 CAPLUS

CN Platinum, [5-phenoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895563-99-2 CAPLUS

CN Platinum, [5-hydroxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-00-8 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-5-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-01-9 CAPLUS

CN Platinum, $[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-(2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895564-02-0 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-5-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-03-1 CAPLUS

CN Platinum, [5-(methylthio)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-04-2 CAPLUS

CN Platinum, [5-(methylsulfonyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-05-3 CAPLUS

CN Platinum, [5-(methylsulfinyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-06-4 CAPLUS

CN Platinum, [5-mercapto-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-07-5 CAPLUS

CN Platinum, [5-nitro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-08-6 CAPLUS

CN Platinum, $[5-(dimethylamino)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895564-09-7 CAPLUS

CN Platinum, [5-amino-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-10-0 CAPLUS

CN Platinum, [5-(acetylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-11-1 CAPLUS

CN Platinum, [5-[(methylsulfonyl)amino]-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-12-2 CAPLUS

CN Platinum, [5-(ethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-13-3 CAPLUS

CN Platinum, [5-formyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-14-4 CAPLUS

CN Platinum, $[5-(hydroxymethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895564-15-5 CAPLUS

CN Platinum, [5-(bromomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-17-7 CAPLUS

CN Platinum, [5-(cyanomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-18-8 CAPLUS

CN Platinate(1-), [5-(carboxylatomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]-, hydrogen (9CI) (CA INDEX NAME)

● H+

RN 895564-19-9 CAPLUS

CN Platinum, [5-(methoxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-21-3 CAPLUS

CN Platinum, [5-[(diethylamino)methyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-22-4 CAPLUS

CN Platinum, $[5-(3-methoxy-3-oxo-1-propeny1)-2-(2-pyridiny1-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895564-23-5 CAPLUS

CN Platinum, [5-(3-methoxy-3-oxopropyl)-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-24-6 CAPLUS

Platinum, [2',3',4',5',6'-pentafluoro-4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-25-7 CAPLUS

CN Platinum, [2-methyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-26-8 CAPLUS

CN Platinum, [4-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-27-9 CAPLUS

CN Platinum, [2-ethenyl-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-28-0 CAPLUS

CN Platinum, [4-ethenyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

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 $\frac{1}{2}$ $\frac{1}$

RN 895564-29-1 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][3-(2-pyridinyl- κ N)[1,1'-biphenyl]-2-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-30-4 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-31-5 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-(2-pyridinyl- κ N)[1,1'-biphenyl]-4-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-32-6 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-4,6-bis(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-33-7 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-34-8 CAPLUS

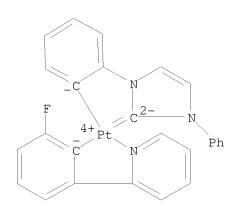
CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-35-9 CAPLUS

CN Platinum, [4-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-36-0 CAPLUS

CN Platinum, [2-fluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895564-37-1 CAPLUS

CN Platinum, [2,4-difluoro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-38-2 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-6-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-39-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-4-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

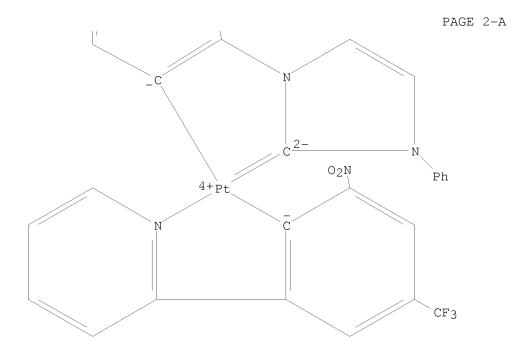
RN 895564-40-6 CAPLUS

CN Platinum, [4-nitro-2-(2-pyridinyl- κ N)-6-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-41-7 CAPLUS

CN Platinum, [2-nitro-6-(2-pyridinyl- κ N)-4-(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)





RN 895564-42-8 CAPLUS CN Platinum, [4-cyano-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-

phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-43-9 CAPLUS

CN Platinum, [2-cyano-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-44-0 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-6-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-45-1 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-pyridinyl- κ N)-4-(trimethylsilyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-46-2 CAPLUS

CN Platinum, [2-cyano-4-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

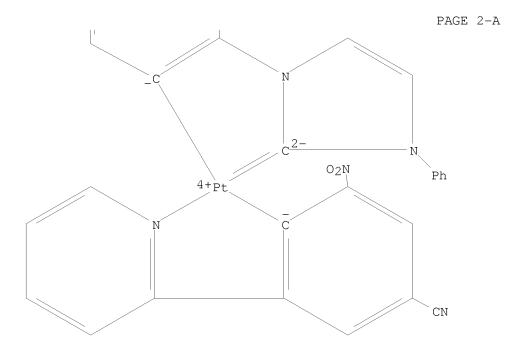
Page 359

RN 895564-47-3 CAPLUS

CN Platinum, [4-cyano-2-nitro-6-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

PAGE 1-A



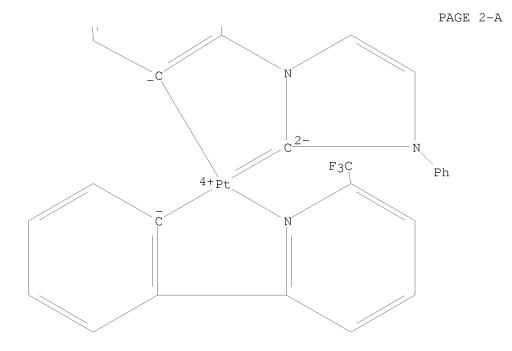


RN

895564-48-4 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-[6-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX CN NAME)

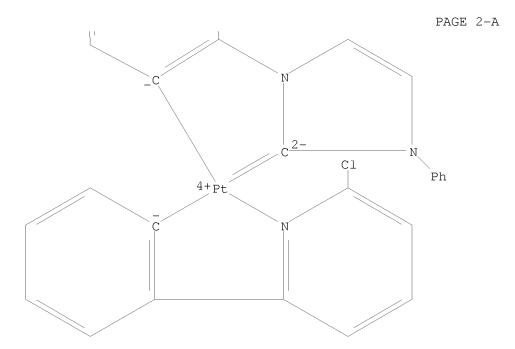
PAGE 1-A





RN 895564-49-5 CAPLUS CN Platinum, [2-(6-chloro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

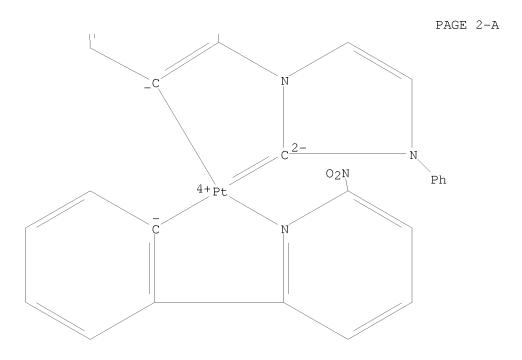




RN 895564-50-8 CAPLUS CN Platinum, [2-(6-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-

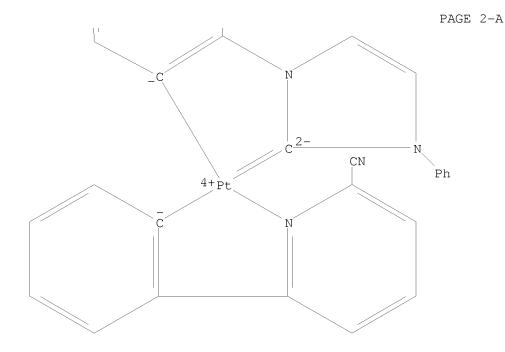
phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)





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RN 895564-51-9 CAPLUS CN Platinum, [2-(6-cyano-2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)
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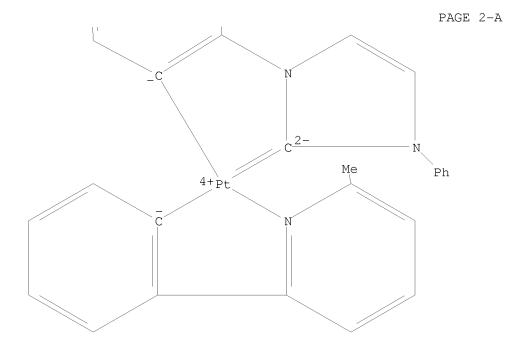




RN 895564-52-0 CAPLUS

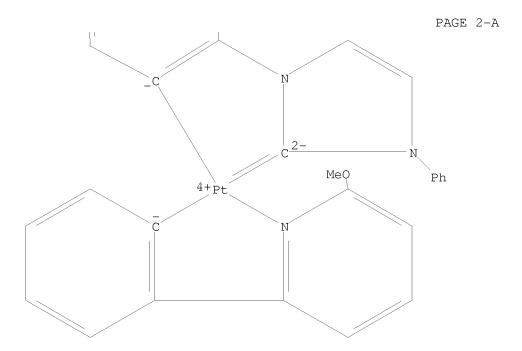
CN Platinum, [2-(6-methyl-2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)





RN 895564-53-1 CAPLUS CN Platinum, [2-(6-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

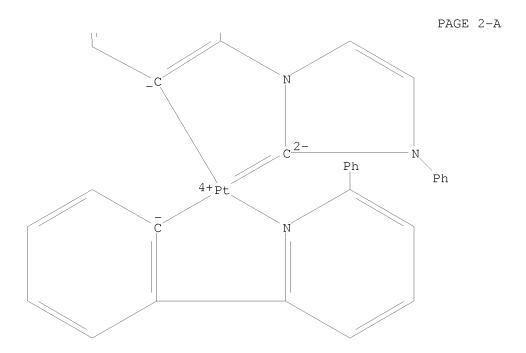




RN 895564-54-2 CAPLUS CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(6-

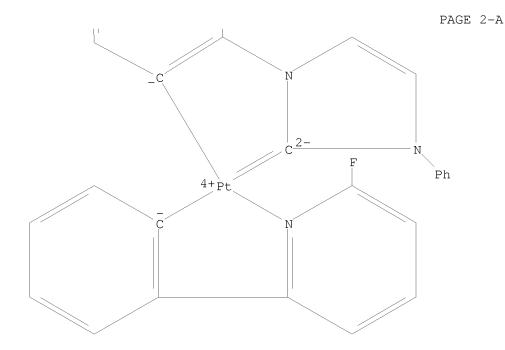
phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)





RN 895564-55-3 CAPLUS CN Platinum, [2-(6-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)





RN 895564-56-4 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-[3- $(\text{trifluoromethyl}) - 2 - \text{pyridinyl} - \kappa N] \text{phenyl} - \kappa C] - (9CI)$ (CA INDEX NAME)

RN

895564-57-5 CAPLUS Platinum, [2-(3-cyano-2-pyridinyl- κ N)phenyl- κ C][1,2-CN phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-58-6 CAPLUS

CN Platinum, [2-(3-nitro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-59-7 CAPLUS

CN Platinum, [2-(3-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN

895564-60-0 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME) CN

RN 895564-61-1 CAPLUS

CN Platinum, [2-(3-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN

895564-62-2 CAPLUS Platinum, [2-(3-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-CN phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX

RN 895564-63-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-[4- $(\text{trifluoromethyl}) - 2 - \text{pyridinyl} - \kappa \text{N}] \text{phenyl} - \kappa \text{C}] - (9\text{CI})$ (CA INDEX NAME)

RN 895564-64-4 CAPLUS

CN Platinum, [2-(4-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-65-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-66-6 CAPLUS

CN Platinum, [2-(5-methyl-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-67-7 CAPLUS

CN Platinum, [2-(5-fluoro-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-68-8 CAPLUS

CN Platinum, [2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-69-9 CAPLUS

CN Platinum, $[2-[4-(pentafluorophenyl)-2-pyridinyl-\kappa N]phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]-(9CI) (CA INDEX NAME)$

RN

895564-70-2 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(5-CN phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-71-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(4phenyl-2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-72-4 CAPLUS

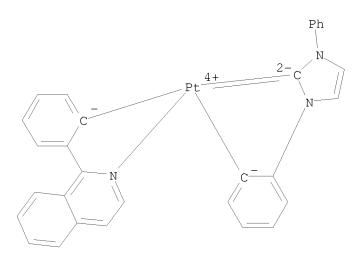
CN Platinum, [3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-73-5 CAPLUS

CN Platinum, [5-fluoro-2-[5-(trifluoromethyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-74-6 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895564-75-7 CAPLUS

CN Platinum, [4-[dimethyl(tridecafluorohexyl)silyl]-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)- ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-77-9 CAPLUS

CN Platinum, [5-fluoro-2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-78-0 CAPLUS

CN Platinum, [2-[5-(pentafluorophenyl)-2-pyridinyl- κ N]-5- (trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-79-1 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-[5-(pentafluorophenyl)-2-pyridinyl-κN][1,1'-biphenyl]-4-yl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-80-4 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-4-[5-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-81-5 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-3-[4-(pentafluorophenyl)-2-pyridinyl-κN][1,1'-biphenyl]-4-yl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-82-6 CAPLUS

CN Platinum, [2',3',4',5',6'-pentafluoro-4-[4-(pentafluorophenyl)-2-pyridinyl- κ N][1,1'-biphenyl]-3-yl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-83-7 CAPLUS

CN Platinum, [4-cyano-3,5-difluoro-2-(4-methoxy-2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-84-8 CAPLUS

CN Platinum, [2-(4-methoxy-2-pyridinyl- κ N)-3,5-bis(trifluoromethyl)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-85-9 CAPLUS

CN Platinum, $[2-[4-(dimethylamino)-2-pyridinyl-\kappa N]-3,5-diffuorophenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

$$\begin{array}{c|c} & & & \\ & & & \\ -c & & \\ \hline &$$

RN 895564-86-0 CAPLUS

CN Platinum, $[4-cyano-2-[4-(dimethylamino)-2-pyridinyl-\kappa N]-3,5-difluorophenyl-\kappa C]$ [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-87-1 CAPLUS

CN Platinum, $[2-[4-(dimethylamino)-2-pyridinyl-\kappa N]-3,5-bis(trifluoromethyl)phenyl-\kappa C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895564-88-2 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)][2-(2-quinolinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895564-89-3 CAPLUS

CN Platinum, [5-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-90-6 CAPLUS

CN Platinum, [5-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-91-7 CAPLUS

CN Platinum, [5-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-92-8 CAPLUS

CN Platinum, [4-methyl-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-93-9 CAPLUS

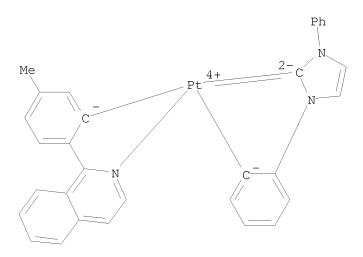
CN Platinum, [4-methoxy-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-94-0 CAPLUS

CN Platinum, [4-(dimethylamino)-2-(2-quinolinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-95-1 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)-5-methylphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

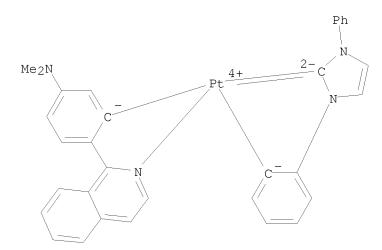


RN 895564-96-2 CAPLUS

CN Platinum, [2-(1-isoquinolinyl-κN)-5-methoxyphenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-97-3 CAPLUS

CN Platinum, [5-(dimethylamino)-2-(1-isoquinolinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)



RN 895564-98-4 CAPLUS

CN Platinum, [2-(1-isoquinolinyl- κ N)-4-methylphenyl- κ C][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895564-99-5 CAPLUS

CN Platinum, $[2-(1-isoquinolinyl-\kappa N)-4-methoxyphenyl-\kappa C]$ [1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-00-1 CAPLUS

CN Platinum, [4-(dimethylamino)-2-(1-isoquinolinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1H-imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN

895565-01-2 CAPLUS Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)phenyl- κ C]- (9CI) (CA INDEX NAME) CN

895565-02-3 CAPLUS RN

Platinum, [5-methyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME) CN

RN 895565-03-4 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][4-(2-pyridinyl- κ N)[1,1'-biphenyl]-3-yl- κ C]- (9CI) (CA INDEX NAME)

RN 895565-04-5 CAPLUS

CN Platinum, $[5-(1,1-dimethylethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895565-05-6 CAPLUS

CN Platinum, [5-cyclohexyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-06-7 CAPLUS

CN Platinum, [5-fluoro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-07-8 CAPLUS

CN Platinum, [5-methoxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

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RN 895565-08-9 CAPLUS

CN Platinum, [5-phenoxy-2-(2-pyridinyl-κN)phenyl-κC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-09-0 CAPLUS

CN Platinum, [5-hydroxy-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-10-3 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-5-(trifluoromethoxy)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895565-11-4 CAPLUS

CN Platinum, $[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-(2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895565-12-5 CAPLUS

CN Platinum, [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][2-(2-pyridinyl- κ N)-5-(trifluoromethyl)phenyl- κ C]- (9CI) (CA INDEX NAME)

RN 895565-13-6 CAPLUS

CN Platinum, [5-(methylthio)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

$$C^{2-}$$
 N-Ph C^{2-} SMe

RN 895565-14-7 CAPLUS

CN Platinum, [5-(methylsulfonyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-15-8 CAPLUS

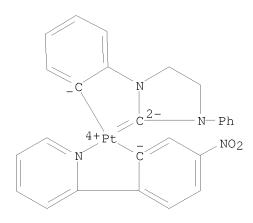
CN Platinum, $[5-(methylsulfinyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895565-16-9 CAPLUS

CN Platinum, [5-mercapto-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-17-0 CAPLUS

CN Platinum, [5-nitro-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)



RN 895565-18-1 CAPLUS

CN Platinum, [5-(dimethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-19-2 CAPLUS

CN Platinum, [5-amino-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-20-5 CAPLUS

CN Platinum, $[5-(acetylamino)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895565-21-6 CAPLUS

CN Platinum, $[5-[(methylsulfonyl)amino]-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-(9CI) (CA INDEX NAME)$

RN 895565-22-7 CAPLUS

CN Platinum, [5-(ethylamino)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-23-8 CAPLUS CN Platinum, [5-formyl-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-

phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-24-9 CAPLUS

CN Platinum, [5-(hydroxymethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-25-0 CAPLUS

CN Platinum, [5-(bromomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

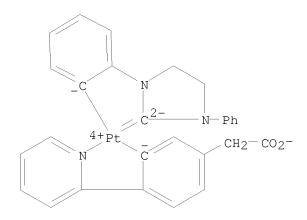
$$C^{2-}$$
 N-Ph
 C^{2-} CH₂Br

RN 895565-26-1 CAPLUS

CN Platinum, $[5-(cyanomethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

RN 895565-27-2 CAPLUS

CN Platinate(1-), [5-(carboxylatomethyl)-2-(2-pyridinyl- κ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, hydrogen (9CI) (CA INDEX NAME)



● H+

RN 895565-28-3 CAPLUS

CN Platinum, $[5-(methoxymethyl)-2-(2-pyridinyl-\kappa N)phenyl-\kappa C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$

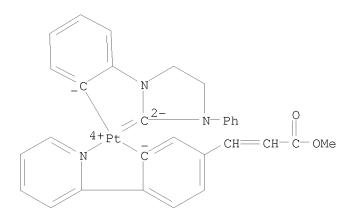
$$\begin{array}{c|c} -C & N \\ \hline & C^{2-} & N-Ph \\ \hline & N & C \\ \hline & C & CH_2-OMe \\ \end{array}$$

RN 895565-29-4 CAPLUS

CN Platinum, $[5-[(diethylamino)methyl]-2-(2-pyridinyl-<math>\kappa$ N)phenyl- κ C][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 895565-30-7 CAPLUS

CN Platinum, $[5-(3-methoxy-3-oxo-1-propenyl)-2-(2-pyridinyl-\kappaN)phenyl-\kappaC][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)$



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:516024 CAPLUS

DOCUMENT NUMBER: 145:28127

TITLE: Preparation of transition metal N-heterocyclic carbene

complexes for use in organic light-emitting diodes

(OLEDs)

INVENTOR(S): Egen, Martina; Kahle, Klaus; Bold, Markus; Gessner,

Thomas; Lennartz, Christian; Nord, Simon; Schmidt, Hans-Werner; Thelakkat, Mukundan; Baete, Markus; Neuber, Christian; Kowalsky, Wolfgang; Schildknecht,

Christian; Johannes, Hans-Hermann BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.				KIND		DATE		APPLICATION NO.				DATE				
WO 2006056418			A2 200		2006	0601 WC							20051123			
WO 20	WO 2006056418		A3		20070111											
W	: AE,	ΑG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
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	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
	SG,	SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,
	VN,	YU,	ZA,	ZM,	ZW	·		•		·	·	·			·	·
R	V: AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		•				•	NL,									
	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW.	GH,
		•				•	SD,									
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DE 102004057072				,		0601		DE 2	004-	1020	0405	7072	2	0041	125	
EP 1819717			A 2		20070822		EP 2005-811689				20051123					

BA, HR, MK, YU

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CN 101065389
                                                           20071031
                                                                                 CN 2005-80040471
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                                                Α
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                                                           20080626
                                                                                  JP 2007-541832
                                                                                                                            20051123
         US 20080018221
                                                Α1
                                                           20080124
                                                                                 US 2007-720291
                                                                                                                            20070525
         KR 2007090953
                                                Α
                                                           20070906
                                                                                 KR 2007-714428
                                                                                                                            20070625
PRIORITY APPLN. INFO.:
                                                                                  DE 2004-102004057072A 20041125
                                                                                  WO 2005-EP12529
                                                                                                                      W 20051123
OTHER SOURCE(S):
                                             MARPAT 145:28127
        N-Heterocyclic transition metal carbene complexes having pending
         cyclometalated (hetero)aromatic moiety,
         [LmKqM[cyclo-C[N(Q-\kappa C2)CY1][X(Y3p)CY2]]n] [M = Group VIII, VIIB or Interpretation of the context of the cont
         VIB metal, preferably M = Ir, Rh Pt; cyclo-C[N(Q-\kappa C2)CY1][X(Y3p)CY2]
         = substituted cyclometalated N-heterocyclic carbene ligand, preferably
         substituted imidazolylidene; Q = optionally substituted (hetero)aromatic
         ring, preferably substituted ortho-metalated Ph, pyridinyl; X = N, O, S,
         preferably X = N; p = 1, 0; Y3 = H, alkyl; Y1, Y2 = H, alkyl, alkenyl
         alkynyl, (hetero)aryl, Y1-Y2 or Y2-Y3 = 5- or 6-membered (hetero)cycle; L
         = mono- or dianionic acidoligand, optionally bidentate; K = neutral mono-
         or bidentate ligand; n \ge 1; n+m+q = oxidation number of the metal M],
         useful as components for light-emitting diodes (OLEDs), preferably as
         light-emitting components, were prepared by deprotonation and
         cyclometalation of the corresponding carbene precursors
         [cyclo-HC[N(QH)CY1][X(Y3p)CY2]]X1 (X1 = counteranion, preferably X1 =
         BF4-, PF6-) and tested as emitting substances in model OLEDs. In an
         example, complex tris-[1-(4-cyano-1,2-phenylene-\kappaC2)-3-methyl-2-
         imidazolylidene]iridium (1) was prepared with 79.7% yield by methylation of
         56 g of 4-(1H-imidazol-1-yl)benzonitrile by 234.2 g of MeI in 560 mL of
         THF for 48 h followed by deprotonation and complexation with [Ir(cod)Cl]2
         in mol ratio 10:1. In another example, a mixture of 1 and
         1,3-phenylene-10,10'-bis(phenothiazin-5,5,5',5'-tetroxide) was used as
         light-emitting composition, yielding a emission with a maximum at 466 nm,
external
         quantum yield of 7.3% and efficiency of 9.9 lm W-1.
         888725-36-8
         RL: DEV (Device component use); PEP (Physical, engineering or chemical
         process); PYP (Physical process); PROC (Process); USES (Uses)
               (preparation of transition metal N-heterocyclic carbene cyclometalated
               complexes as electroluminescent components for organic light-emitting
              diodes)
RN
         888725-36-8 CAPLUS
         Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene]-
CN
           (9CI) (CA INDEX NAME)
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R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1202856 CAPLUS

DOCUMENT NUMBER: 145:513425

TITLE: Novel deep-blue emitting phosphorescent emitter AUTHOR(S): Schildknecht, C.; Ginev, G.; Kammoun, A.; Riedl, T.;

Kowalsky, W.; Johannes, H.-H.; Lennartz, C.; Kahle, K.; Egen, M.; Gessner, T.; Bold, M.; Nord, S.; Erk, P.

CORPORATE SOURCE: Institut fuer Hochfrequenztechnik, Technische Univ.

Braunschweig, Braunschweig, D-38106, Germany

SOURCE: Proceedings of SPIE-The International Society for

Optical Engineering (2005), 5937(Organic Light-Emitting Materials and Devices IX),

59370E/1-59370E/9

CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ Currently, one of the most challenging applications for OLEDs is the full color display. The most energy-efficient way to realize light generation in OLEDs is by using phosphorescent emitters. Green and red emitters have already been demonstrated, but the search for blue emitting organic phosphorescent emitters with good color purity is still ongoing with arduous effort. Here we present our work with a new material developed at BASF which allows phosphorescent emission in the deep-blue spectral range. The emitter has an emission maximum at 400 nm, which gives CIE color coordinates of x = 0.16 and y = 0.06. An OLED device made with this new material shows a maximum external quantum efficiency of 1.5 %. The OLED was built in a three layer structure, with the emitting zone being a hybrid quest-host system. As host material we used the optically and electronically inert polymer poly-methyl-methacrylate (PMMA). Because of its lack of charge transport abilities we doped the host material with a high concentration of the triplet emitting material, i.e. the emitter itself is also used as charge transport material.

IT 888725-36-8

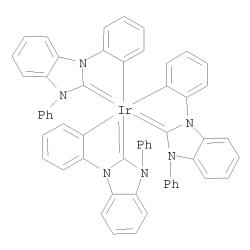
RL: DEV (Device component use); PEP (Physical, engineering or chemical

process); PRP (Properties); PYP (Physical process); PROC (Process); USES
(Uses)

(new material developed at BASF allowing phosphorescent emission in deep-blue spectral range)

RN 888725-36-8 CAPLUS

CN Iridium, tris[(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)-1,2-phenylene](9CI) (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:182773 CAPLUS

DOCUMENT NUMBER: 142:287586

TITLE: Transition metal complexes comprising carbene ligands

serving as emitters for organic light-emitting diodes

(OLEDs)

INVENTOR(S): Bold, Markus; Lennartz, Christian; Prinz, Martina;

Schmidt, Hans-Werner; Thelakkat, Mukundan; Baete, Markus; Neuber, Christian; Kowalsky, Wolfgang; Schildknecht, Christian; Johannes, Hans-Hermann

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2005019373	A2 2005030		20040818
WO 2005019373	A3 2005051	9	
W: AE, AG, AL	, AM, AT, AU, AZ	, BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO, CR	, CU, CZ, DE, DK	, DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH, GM	, HR, HU, ID, IL	, IN, IS, JP, KE, KG,	KP, KR, KZ, LC,
LK, LR, LS	, LT, LU, LV, MA	, MD, MG, MK, MN, MW,	MX, MZ, NA, NI,
NO, NZ, OM	, PG, PH, PL, PI	, RO, RU, SC, SD, SE,	SG, SK, SL, SY,

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TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                            DE 2003-10338550
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                                20050331
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                          Α2
                                20060524
                                            EP 2004-764255
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
                                            CN 2004-80030649
     CN 1871322
                          Α
                                20061129
                                                                    20040818
     JP 2007533774
                          Τ
                                20071122
                                            JP 2006-523602
                                                                    20040818
     KR 2007050859
                                20070516
                                            KR 2006-703352
                                                                    20060217
                          Α
PRIORITY APPLN. INFO.:
                                             DE 2003-10338550
                                                                 A 20030819
                                             WO 2004-EP9269
                                                                   20040818
                                                                 W
     The use in organic light-emitting diodes (OLEDs) is described of transition
AΒ
     metal complexes described by the general formula (L)m(K)oM(carbene)n (M = metal complexes)
     Co, Rh, Ir, Nb, Pd, Pt, Fe, Ru, Os, Cr, Mo, W, Mn, Tc, Re, Cu, Ag, or Au;
     carbene = neutral or singly charged anionic mono- or bi- or tridentate
     carbene ligands, including bis or tris carbene ligands; L = monodentate or
     bidentate singly or doubly charged anionic ligands; K = neutral mono or
     bidentate ligands selected from phosphine, phosphates and their derivs.,
     arsenates and their derivs., phosphates, CO, pyridines, nitriles, and
     conjugated dienes that can form \pi complexes with M; n \ge 1, with
     the caveat that, when n > 1, the carbone ligands may be the same or
     different; and m \geq 0, with the caveat that, if m > 1, the L ligands
     may be the same or different; o \ge 0, with the caveat that, if o >
     1, the K ligands may be the same or different). Light-emitting layers are
     described which comprise the carbene ligand-containing compds., and OLEDs are
     also described which employ the layers, along with devices incorporating
     the OLEDs. Selected transition metal complexes are also described. The
     use of the transition metal complexes to color bulk polymers is also
     described.
     847049-63-2P 847049-64-3P 847049-65-4P
ΤТ
     847049-66-5P 847063-08-5P 847063-11-0P
     RL: DEV (Device component use); SPN (Synthetic preparation); PREP
     (Preparation); USES (Uses)
        (transition metal complexes comprising carbene ligands serving as
        emitters for organic light-emitting diodes and compds. and diodes and
        devices using them)
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Iridium, tris[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI)

RN

CN

847049-63-2 CAPLUS

(CA INDEX NAME)

Page 412

RN 847049-64-3 CAPLUS

CN Iridium, tris[(4'-methyl[1,1'-biphenyl]-3,4-diyl)[3-(4-methylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

Page 413

RN 847049-65-4 CAPLUS

CN Iridium, tris[[1,1'-biphenyl]-3,4-diyl(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)]-, (OC-6-22)-(9CI) (CA INDEX NAME)

RN 847049-66-5 CAPLUS

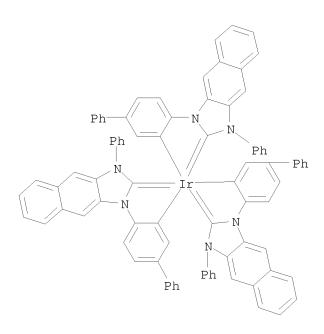
CN Iridium, tris[[1,1'-biphenyl]-3,4-diyl(3-phenyl-1H-naphth[2,3-d]imidazol-1-yl-2(3H)-ylidene)]- (9CI) (CA INDEX NAME)

RN 847063-08-5 CAPLUS

CN Iridium, tris[[1,1'-biphenyl]-3,4-diyl(3-phenyl-1H-benzimidazol-1-yl-2(3H)-ylidene)]-, (OC-6-21)- (9CI) (CA INDEX NAME)

RN 847063-11-0 CAPLUS

CN Iridium, tris[[1,1'-biphenyl]-3,4-diyl(3-phenyl-1H-naphth[2,3-d]imidazol-1-yl-2(3H)-ylidene)]-, (OC-6-22)- (9CI) (CA INDEX NAME)



L4 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:403058 CAPLUS

DOCUMENT NUMBER: 140:406957

TITLE: Preparation of N-heterocyclic carbene complexes as

catalysts for hydrogenation and hydrosilylation

INVENTOR(S): Dioumaev, Vladimir K.; Bullock, R. Morris PATENT ASSIGNEE(S): Brookhaven Science Associates, LLC, USA

SOURCE: U.S., 14 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6737531	B1	20040518	US 2002-320954	20021217
US 20050075504	A1	20050407	US 2003-731378	20031209
US 7005525	В2	20060228		

A2 20021217

PRIORITY APPLN. INFO.: US 2002-320954
OTHER SOURCE(S): CASREACT 140:406957; MARPAT 140:406957

The preparation of organometallic complex, [CpM(CO)2(NHC)Lk]+A- (M = Mo, W; Cp = (un)substituted cyclopentadienyl radical represented by [C5Q1Q2Q3Q4Q5], Q1-Q5 = independently selected from the group consisting of H, C1-20 hydrocarbyl, substituted hydrocarbyl, halo, halo-substituted hydrocarbyl, -OR, -C(O)R', -CO2R', -SiR'3, and -NR'R'', wherein R', R'' = independently selected from the group consisting of H, C1-20 hydrocarbyl, halo, and halo-substituted hydrocarbyl, wherein Q1-Q5 radicals are optionally linked to each other to form a stable bridging group; NHC = N-heterocyclic carbene; L = neutral electron donor ligand; k = 0-1, or L is an anionic ligand wherein k is 2, and A- is an anion) is described. Thus, reaction of CpW(CO)2(PMe3)H with 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene (IMes) in PhMe gave 76% CpW(CO)2(IMes)H which on treatment with Ph3C+B(C6F5)4- in PhMe gave 91% title catalyst,

[CpW(CO)2(IMes)]+[B(C6F5)4]-. Processes using the organometallic complex as catalyst for hydrogenation of aldehydes and ketones are provided. Processes using the organometallic complex as catalyst for the hydrosilylation of aldehydes, ketones and esters are also provided.

IT 688785-27-5P

RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of nitrogen heterocyclic carbene molybdenum and tungsten complexes as catalysts for hydrogenation and hydrosilylation)

RN 688785-27-5 CAPLUS

CN Tungsten(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene]-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-81-4 CMF C28 H29 N2 O2 W

CCI CCS

CM 2

CRN 47855-94-7 CMF C24 B F20

CCI CCS

IT 688785-26-4P 688785-29-7P
RL: CAT (Catalyst use): SPN (Synthetic preparation): PREP (F

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation of nitrogen heterocyclic carbene molybdenum and tungsten complexes as catalysts for hydrogenation and hydrosilylation) $\,$

RN 688785-26-4 CAPLUS

CN Molybdenum(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene]-,

Page 417

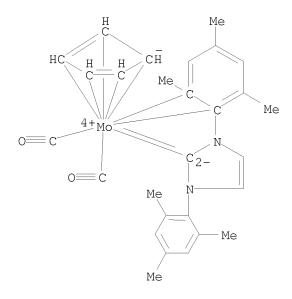
stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-79-0

CMF C28 H29 Mo N2 O2

CCI CCS



CM 2

CRN 47855-94-7

CMF C24 B F20

CCI CCS

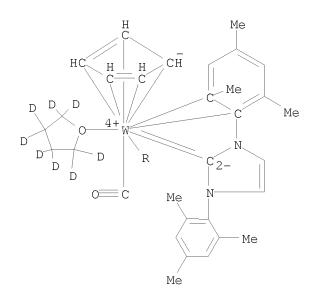
RN 688785-29-7 CAPLUS

CN Tungsten(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene](tetrahydro-d4-furan-d4)-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-85-8 CMF C32 H29 D8 N2 O3 W CCI CCS

PAGE 1-A



PAGE 2-A

 $R \subset 0$

CM 2

CRN 47855-94-7 CMF C24 B F20 CCI CCS

IT 688785-28-6P

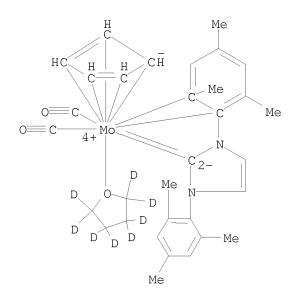
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of nitrogen heterocyclic carbene molybdenum and tungsten complexes as catalysts for hydrogenation and hydrosilylation)

RN 688785-28-6 CAPLUS

CN Molybdenum(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene](tetrahydro-d4-furan-d4)-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-83-6 CMF C32 H29 D8 Mo N2 O3 CCI CCS



CM 2

CRN 47855-94-7 CMF C24 B F20

CCI CCS

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:496788 CAPLUS

DOCUMENT NUMBER: 140:111479

TITLE: An N-heterocyclic carbene as a bidentate hemilabile

ligand: a synchrotron X-ray diffraction and density

functional theory study

AUTHOR(S): Dioumaev, Vladimir K.; Szalda, David J.; Hanson,

Jonathan; Franz, James A.; Bullock, R. Morris

CORPORATE SOURCE: Chemistry Department, Brookhaven National Laboratory,

Upton, NY, 11973-5000, USA

SOURCE: Chemical Communications (Cambridge, United Kingdom)

(2003), (14), 1670-1671

CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:111479

AB The N-heterocyclic carbene ligand IMes (IMes =

1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene) was shown by synchrotron crystallog. and DFT computations to adopt a hemilabile bidentate

coordination mode in CpM(CO)2(IMes)+B(C6F5)-4 (M = Mo (1), W(2)), with a C:C bond of one mesityl weakly coordinated to the metal. Both 1 and 2 exhibit modest catalytic activity for the hydrogenation of ethanone.

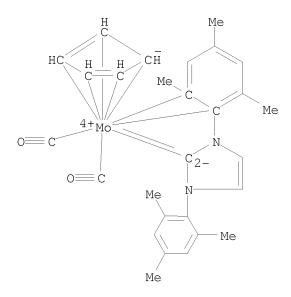
IT 688785-26-4P

RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

 $\label{eq:weights} $$(W$-arene $\eta 2$ hapticity; synthesis, bonding and DFT study of 16e-complexes of Mo and W having bidentate hemilabile ligands) $$RN$ 688785-26-4 CAPLUS $$(N^2-2,4-cyclopentadien-1-y1)[$\eta 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene]-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME) $$$

CM 1

CRN 646512-79-0 CMF C28 H29 Mo N2 O2 CCI CCS



CM 2

CRN 47855-94-7 CMF C24 B F20 CCI CCS

IT 688785-27-5P

RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (crystal structure, W-arene $\eta 2$ -hapticity; synthesis, bonding and DFT study of 16e- complexes of Mo and W having bidentate hemilabile ligands)

RN 688785-27-5 CAPLUS

CN Tungsten(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene]-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-81-4 CMF C28 H29 N2 O2 W CCI CCS

CM 2

CRN 47855-94-7 CMF C24 B F20

CCI CCS

IT 688785-28-6P 688785-29-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis, bonding and DFT study of 16e- complexes of Mo and W having bidentate hemilabile ligands)

RN 688785-28-6 CAPLUS

CN Molybdenum(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene](tetrahydro-d4-furan-d4)-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI)

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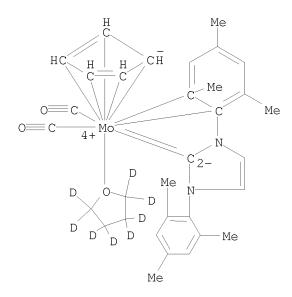
(CA INDEX NAME)

CM 1

CRN 646512-83-6

CMF C32 H29 D8 Mo N2 O3

CCI CCS



CM 2

CRN 47855-94-7

CMF C24 B F20

CCI CCS

RN 688785-29-7 CAPLUS

CN Tungsten(1+), dicarbonyl(η 5-2,4-cyclopentadien-1-yl)[η 3-1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene](tetrahydro-d4-furan-d4)-, stereoisomer, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 646512-85-8 CMF C32 H29 D8 N2 O3 W

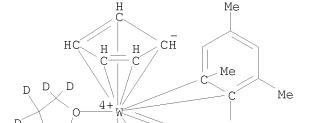
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 $o \equiv C$

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CCI CCS



R

Me N Me

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Me Me

PAGE 2-A

PAGE 1-A

 $R \subset 0$

CM 2

CRN 47855-94-7 CMF C24 B F20

CCI CCS

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:272293 CAPLUS

DOCUMENT NUMBER: 137:20464

TITLE: C-C and C-H Bond Activation Reactions in

N-Heterocyclic Carbene Complexes of Ruthenium

AUTHOR(S): Jazzar, Rodolphe F. R.; Macgregor, Stuart A.; Mahon,

Mary F.; Richards, Stephen P.; Whittlesey, Michael K. Department of Chemistry, University of Bath, Bath, BA2

7AY, UK

SOURCE: Journal of the American Chemical Society (2002),

124(18), 4944-4945

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:20464

AB Thermolysis of Ru(PPh3)3(CO)H2 with the N-heterocyclic carbene bis(1,3-(2,4,6-trimethylphenyl)imidazol-2-ylidene) (IMes) results in C-C activation of an Ar-CH3 bond in one of the mesityl rings of the carbene ligand. Upon addition of IMes to Ru(PPh3)3(CO)H2 at room temperature in the presence of an alkene, C-H bond activation is observed instead. The thermodn. of these C-C and C-H cleavage reactions have been probed using d. functional theory.

IT 434318-96-4P

CORPORATE SOURCE:

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 434318-96-4 CAPLUS

CN Ruthenium, carbonyl[(3,5-dimethyl-1,2-phenylene)[3-(2,4,6-trimethylphenyl)-1H-imidazol-1-yl-2(3H)-ylidene]]hydrobis(triphenylphosphine)-, (OC-6-14)-(9CI) (CA INDEX NAME)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:169514 CAPLUS

DOCUMENT NUMBER: 112:169514

ORIGINAL REFERENCE NO.: 112:28431a,28434a

TITLE: Crystal and molecular structure of the

ruthenium-carbene-tetrahydroborate complex

[Ru(BH4)(LAr)(PPh3)2]; (LAr = CN(C6H4Me-4)CH2CH2NC6H3Me-4)

AUTHOR(S): Thomas, S. A.

CORPORATE SOURCE: Dep. Chem., Ahmadu Bello Univ., Zaria, Nigeria

SOURCE: Journal of Crystallographic and Spectroscopic Research

(1989), 19(6), 1017-31

CODEN: JCREDB; ISSN: 0277-8068

DOCUMENT TYPE: Journal LANGUAGE: English

AB The title compound is monoclinic, space group P21/c, with a 15.940(1), b 23.357(2), c 18.767(2) Å, and β 132.62(1)°; dc = 1.150 for

 $\rm Z=4$. The final R = 0.074 and Rw = 0.085 for 1848 reflections. Atomic coordinates are given. The BH4- ligand in the complex is bidentate. The lengths of the Ru-carbene C bond and other bonds to the Ru are determined by a

combination of several factors, and not just by a purely $\sigma\text{--}$ or

 π -bonding interaction.

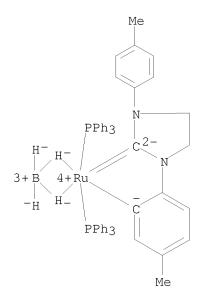
IT 126155-76-8

RL: PRP (Properties)

(crystal structure of)

RN 126155-76-8 CAPLUS

CN Ruthenium, [(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]][tetrahydroborato(1-)-H,H']bis(triphenylphosphine)-, (OC-6-14)-(9CI) (CA INDEX NAME)



ANSWER 39 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1983:89623 CAPLUS

DOCUMENT NUMBER: 98:89623

ORIGINAL REFERENCE NO.: 98:13690h,13691a

TITLE:

Homoleptic tris(organochelate)iridium(III) complexes by spontaneous ortho-metalation of election-rich

olefin-derived N, N'-diarylcarbene ligands and the

x-ray structures of

tris(ortho-metalated-carbene)iridium(III) complexes AUTHOR(S): Hitchcock, Peter B.; Lappert, Michael F.; Terreros,

Pilar

Sch. Chem. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, CORPORATE SOURCE:

SOURCE: Journal of Organometallic Chemistry (1982), 239(2),

C26-C30

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal LANGUAGE: English

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Treating [$\{Ir(COD)(\mu-Cl)\}$] with excess of the electron-rich olefin I (R = C6H4Me-p, C6H4OMe-p) affords the ortho-metalated tricycle II (R1 = Me, OMe). II (R1 = Me) with HCl yields III; x-ray data show that in III there is an unexpectedly close Ir···C(o-aryl) contact involving the free ligand.

ΙT 84667-30-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and structure of)

84667-30-1 CAPLUS RN

CN Iridium(1+), [1,3-bis(4-methylphenyl)-2-imidazolidinylidene]bis[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]-, chloride, (SP-5-33)- (9CI) (CA INDEX NAME)

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Ме

● C1-

RN 84667-32-3 CAPLUS

CN Iridium(1+), [1,3-bis(4-methylphenyl)-2-imidazolidinylidene]bis[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]-, (SP-5-33)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 84667-31-2 CMF C51 H52 Ir N6

CCI CCS

PAGE 2-A

Ме

PAGE 1-A

CM 2

CRN 4358-26-3 CMF C24 H20 B

CCI CCS

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RN 84668-52-0 CAPLUS

CN Iridium, tris[(5-methoxy-1,2-phenylene)[3-(4-methoxyphenyl)-1-imidazolidinyl-2-ylidene]]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A

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IT 84668-51-9P

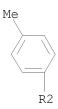
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, crystal structure, and protonation of)

RN 84668-51-9 CAPLUS

CN Iridium, tris[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]-, (OC-6-22)- (9CI) (CA INDEX NAME)

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L4 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1981:604131 CAPLUS

DOCUMENT NUMBER: 95:204131

ORIGINAL REFERENCE NO.: 95:34117a,34120a

TITLE: Preparation and characterization of new

cycloplatinated carbene complexes

AUTHOR(S): Hiraki, Katsuma; Onishi, Masayoshi; Ohnuma, Kohji;

Sugino, Keiichi

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852, Japan

SOURCE: Journal of Organometallic Chemistry (1981), 216(3),

413-19

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AB Reaction of (PtIMe3)4 with bis(1,3-diphenyl-2-imidazolidinylidene)
[(Hdpim)2] gave a new dinuclear carbene complex, [{Pt(dpim)I}2] (I) in 84%
yields, which contains a cycloplatinated carbene structure. Some
mononuclear derivs., [Pt(dpim)(acac)] (acac = acetylacetonato),
[Pt(dpim)I{P(OCHMe2)3}], [Pt(dpim)(NCMe2)2]ClO4, and [Pt(dpim)(COD)]ClO4
(COD = 1,5-cyclooctadiene) were prepared from I. An intermediate species,
[{PtMeI(Hpdim)}2], leading to I is discussed.

RN 79670-64-7 CAPLUS

Ι

CN Platinum, $di-\mu-iodobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di-(9CI) (CA INDEX NAME)$

TT 79670-65-8P 79670-66-9P 79670-68-1P 79766-83-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 79670-65-8 CAPLUS

CN Platinum, (2,4-pentanedionato-0,0')[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)- (9CI) (CA INDEX NAME)

RN 79670-66-9 CAPLUS

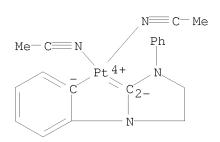
CN Platinum, iodo[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][tris(1-methylethyl) phosphite-P]- (9CI) (CA INDEX NAME)

RN 79670-68-1 CAPLUS

CN Platinum(1+), bis(acetonitrile)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 79670-67-0 CMF C19 H19 N4 Pt CCI CCS



CM 2

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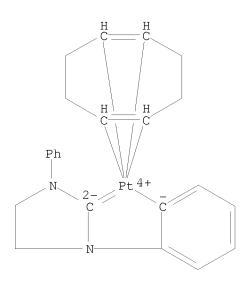
CRN 14797-73-0 CMF Cl O4

RN 79766-83-9 CAPLUS

CN Platinum(1+), [(1,2,5,6- η)-1,5-cyclooctadiene][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 79766-82-8 CMF C23 H25 N2 Pt CCI CCS



CM 2

CRN 14797-73-0 CMF C1 O4

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L4 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1981:65820 CAPLUS

DOCUMENT NUMBER: 94:65820

ORIGINAL REFERENCE NO.: 94:10741a,10744a

TITLE: Cationic (carbene)organopalladium(II) complexes

coordinated with cyclic diolefin or organic nitrile

AUTHOR(S): Hiraki, Katsuma; Sugino, Keiichi

CORPORATE SOURCE: Dep. Ind. Chem., Fac. Eng., Nagasaki, 852, Japan

SOURCE: Journal of Organometallic Chemistry (1980), 201(2),

469-75

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AB The title compds. I (L2 = norbornadiene, 1,5-cyclooctadiene, dicyclopentadiene; L = CH2:CHCN, MeCN, p-MeC6H4CN) were prepared in 22-59% yields by treating II with AgClO4 and L2 or L.

IT 70882-99-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with olefins and with nitriles)

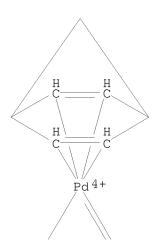
RN 70882-99-4 CAPLUS

CN Palladium, di- μ -chlorobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

CRN 76375-35-4 CMF C22 H21 N2 Pd CCI CCS

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CM



PAGE 2-A

CM 2 CRN 14797-73-0 CMF C1 04

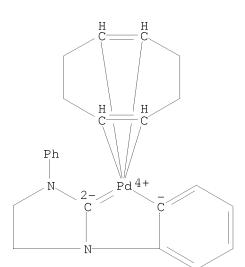
RN 76375-38-7 CAPLUS

10568344b.trn

CN Palladium(1+), [(1,2,5,6- η)-1,5-cyclooctadiene][1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 76375-37-6 CMF C23 H25 N2 Pd CCI CCS



CM 2

CRN 14797-73-0 CMF Cl O4

RN 76375-40-1 CAPLUS

CN Palladium(1+), [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(2-propenenitrile)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 76375-39-8 CMF C21 H19 N4 Pd CCI CCS

$$\begin{array}{c|c} & \text{N} = \text{C} - \text{CH} = \text{CH}_2 \\ \text{H}_2\text{C} = \text{CH} - \text{C} = \text{N} & \text{Ph} \\ \hline \hline \text{C} & \text{C}_2 - \\ \hline \end{array}$$

CM 2

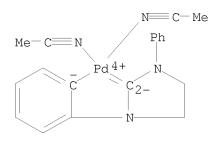
CRN 14797-73-0 CMF Cl O4

RN 76375-42-3 CAPLUS

CN Palladium(1+), bis(acetonitrile)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 76375-41-2 CMF C19 H19 N4 Pd CCI CCS



CM 2

CRN 14797-73-0 CMF Cl 04

RN 76375-44-5 CAPLUS

CN Palladium(1+), bis(4-methylbenzonitrile)[1,2-phenylenebis(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 76375-43-4 CMF C31 H27 N4 Pd CCI CCS

Me
$$C = N \quad Ph$$

$$C = N \quad Ph$$

$$C = N \quad N$$

CM 2

CRN 14797-73-0 CMF Cl O4

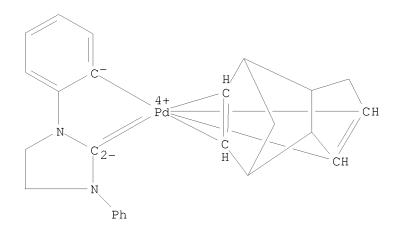
RN 76428-98-3 CAPLUS

CN Palladium(1+), [1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][(2,3,5,6- η)-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 76428-97-2

CMF C25 H25 N2 Pd CCI CCS



CM

CRN 14797-73-0 CMF Cl O4



ANSWER 42 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1980:620917 CAPLUS

DOCUMENT NUMBER: 93:220917

ORIGINAL REFERENCE NO.: 93:35279a,35282a

TITLE: Reactions of halo-bridged organopalladium(II)

complexes with an electron-rich olefin. New

cyclopalladated carbene complexes and

(carbene)chloropalladium(II) complexes containing a

 σ,π -methallyl group of a

 π -coordinated-chelating alkyl-palladium

σ-bond

AUTHOR(S): Hiraki, Katsuma; Sugino, Keiichi; Onishi, Masayoshi

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852, Japan Bulletin of the Chemical Society of Japan (1980), SOURCE:

53(7), 1976-81 CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Pd(II) complex (I) reacted with the electron-rich olefin bis(1,3-diphenyl-2-imidazolidinylidene) (L2) to give the new dinuclear carbene complex (II). Treating I with Tl acetylacetonate, (Me2CHO)3P, 4-picoline, AgOAc and L2 gave new carbene complexes (e.g., III). Reaction of IV and V with L2 gave carbene complexes VI and VII, resp.

IT 70882-99-4P 70883-00-0P 70883-01-1P 70883-02-2P 70883-03-3P 70883-04-4P

70882-99-4P 70883-00-0P 70883-01-1P 70883-02-2P 70883-03-3P 70883-04-4P 75551-63-2P 75551-65-4P 75551-66-5P 75559-72-7P 75598-36-6P

RN 70882-99-4 CAPLUS

CN Palladium, di- μ -chlorobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

RN 70883-00-0 CAPLUS

CN Palladium, (2,4-pentanedionato-0,0')[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)- (9CI) (CA INDEX NAME)

RN 70883-01-1 CAPLUS

CN Palladium, chloro(4-methylpyridine)[1,2-phenylene(3-phenyl-1-

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imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 70883-02-2 CAPLUS

CN Palladium, chloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][tris(1-methylethyl) phosphite-P]-, (SP-4-4)- (9CI) (CA INDEX NAME)

RN 70883-03-3 CAPLUS

CN Palladium, bis[μ -[acetato-0:0']bis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

RN 70883-04-4 CAPLUS

CN Palladium, di- μ -bromobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

RN 75551-63-2 CAPLUS

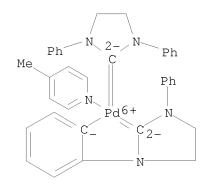
CN Palladium, bromo(4-methylpyridine)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 75551-65-4 CAPLUS

CN Palladium(1+), (1,3-diphenyl-2-imidazolidinylidene)(4-methylpyridine)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-2)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 75551-64-3 CMF C36 H34 N5 Pd CCI CCS



CM 2

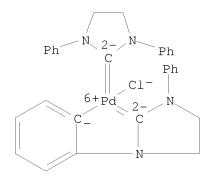
CRN 14797-73-0 CMF C1 O4

RN 75551-66-5 CAPLUS

CN Palladium, bromo(1,3-diphenyl-2-imidazolidinylidene)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-4)- (9CI) (CA INDEX NAME)

RN 75559-72-7 CAPLUS

CN Palladium, chloro(1,3-diphenyl-2-imidazolidinylidene)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-4)- (9CI) (CA INDEX NAME)

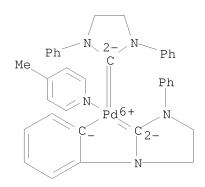


RN 75598-36-6 CAPLUS

CN Palladium(1+), (1,3-diphenyl-2-imidazolidinylidene)(4-ethylpyridine)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-4)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 75598-35-5 CMF C36 H34 N5 Pd CCI CCS



CM 2

CRN 14797-73-0 CMF Cl O4

L4 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1980:146879 CAPLUS

DOCUMENT NUMBER: 92:146879

ORIGINAL REFERENCE NO.: 92:23877a,23880a

TITLE: Carbene complexes. 16. Synthesis of

NN'N''N'''-tetraaryl-substituted electron-rich olefin-derived carbeneruthenium(II) complexes

containing an ortho-metalated-N-arylcarbene ligand;

crystal structures of RuClR(PEt3)2 and

Ru(CO)ClR(PEt3)2 (R =

1,3-bis(4-tolyl)imidazolidin-2-ylidene-C2C2')

AUTHOR(S): Hitchcock, Peter B.; Lappert, Michael F.; Pye, Peter

L.; Thomas, Sunday

CORPORATE SOURCE: Sch. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK

SOURCE: Journal of the Chemical Society, Dalton Transactions:

Inorganic Chemistry (1972-1999) (1979), (12), 1929-42

CODEN: JCDTBI; ISSN: 0300-9246

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

RuC12(PPh3)3 reacts thermally with the electron-rich olefins I [R = Ph, C6H4Me-4 (II), C6H4OMe-4 or -2), with elimination of PPh3 and HCl, to form 5-coordinated III containing an o-metalated N-arylcarbene ligand L (R1 = H, Me, OMe). The reaction of II with RuCl(NO)(PPh3)2 also gives the appropriate RuClL(PPh3)2. Complexes III readily undergo phosphine substitution reactions with PR23 [R23 = Et3, Bu3, Bu2Ph, Et2Ph, Me2Ph, but not tricyclohexyl]. The reaction of III (R = C6H4Me-4, R1 = Me) with I (R= Et) (IV) gives the bis(carbene) complex RuClL(L1)(PPh3) (L1 = nonmetalated carbene ligand derived from IV). Small ligands [e.g., CO, PF3, P(OMe)3 or NCMe] generally add to form 6-coordinate complexes of variable thermal stability. The reaction of RuCl3(NO)(PPh3)2 with II also gives an o-metalated complex, RuCl2L(NO)PPh3. This complex does not undergo substitution by PR23 but with IV, NOC1 is lost to give RuCl(L1)(PPh3). The IR and 1H, 13C and 31P NMR spectra of the complexes were studied. The 5- and 6-coordinate complexes are stereochem. rigid in solution The crystal and mol. structures of the title complexes were determined

by x-ray diffraction and refined to R 0.054 and 0.045, resp., for 3035 and 3142 reflections, resp. In the overall pseudooctahedral geometry about Ru, the 2 complexes differ only in the replacement of a weak Ru...HC contact (2.23 Å) in the former for a CO ligand in the latter.

IT 64055-31-8P 72904-25-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal and mol. structure of)

RN 64055-31-8 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triethylphosphine)-, (SP-4-3)- (9CI) (CAINDEX NAME)

RN 72904-25-7 CAPLUS

CN Ruthenium, carbonylchloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triethylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (SP-5-43)- (9CI) (CFINDEX NAME)

RN 64055-28-3 CAPLUS
CN Ruthenium, chloro(1,3-diethyl-2-imidazolidinylidene)[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]](triphenylphosphine)- (9CI) (CA INDEX NAME)

RN 72871-21-7 CAPLUS

CN Ruthenium, chlorobis(dimethylphenylphosphine)[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 72871-22-8 CAPLUS

CN Ruthenium, carbonylchloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(triethylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

RN 72871-23-9 CAPLUS

CN Ruthenium, chloro(1,3-diethyl-2-imidazolidinylidene)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)](triphenylphosphine)-, (SP-5-53)- (9CI) (CA INDEX NAME)

RN 72871-24-0 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triethylphosphine)(trimethyl phosphite-P)-,(OC-6-45)-(9CI) (CA INDEX NAME)

RN 72871-25-1 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]](phosphorous trifluoride)bis(triphenylphosphine)-, (OC-6-45)- (9CI) (CA INDEX NAME)

RN 72871-26-2 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]](phosphorous trifluoride)bis(triethylphosphine)-, (OC-6-45)- (9CI) (CA INDEX NAME)

RN 72871-27-3 CAPLUS

CN Ruthenium, (acetonitrile)chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

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RN 72871-28-4 CAPLUS

CN Ruthenium, chloro[1,2-ethanediylbis[diphenylphosphine]-P,P'][(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]](triphenylphosphine)-, (OC-6-43)- (9CI) (CA INDEX NAME)

RN 72871-29-5 CAPLUS

CN Ruthenium, carbonylchloro[(3-methoxy-1,2-phenylene)[3-(2-methoxyphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

RN 72871-30-8 CAPLUS

CN Ruthenium, chloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(triphenylphosphine)-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 72871-31-9 CAPLUS

CN Ruthenium, chloro[(5-methoxy-1,2-phenylene)[3-(4-methoxyphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 72871-32-0 CAPLUS

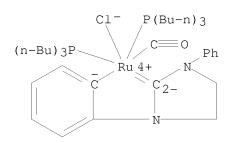
CN Ruthenium, chloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(triethylphosphine)-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 72882-43-0 CAPLUS

CN Ruthenium, carbonylchloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(triphenylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

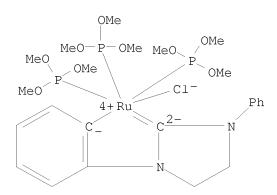
RN 72882-44-1 CAPLUS

CN Ruthenium, carbonylchloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]bis(tributylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)



RN 72882-45-2 CAPLUS

CN Ruthenium, chloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]tris(trimethyl phosphite-P)-, (OC-6-34)- (9CI) (CA INDEX NAME)



RN 72882-46-3 CAPLUS

CN Ruthenium, chlorobis(dibutylphenylphosphine)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 72904-24-6 CAPLUS

CN Ruthenium, carbonylchloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)

RN 73016-72-5 CAPLUS

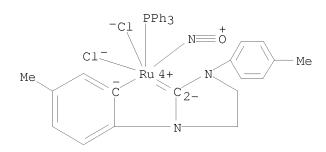
CN Ruthenium, chlorobis(diethylphenylphosphine)[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 73016-73-6 CAPLUS

CN Ruthenium, iodo[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (SP-5-43)- (9CI) (CA INDEX NAME)

RN 73016-74-7 CAPLUS

CN Ruthenium, dichloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]nitrosyl(triphenylphosphine)-, (OC-6-42)- (9CI) (CA INDEX NAME)



L4 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1979:474697 CAPLUS

DOCUMENT NUMBER: 91:74697

ORIGINAL REFERENCE NO.: 91:12085a,12088a

TITLE: Synthesis and characterization of new cyclopalladated

carbene complexes

AUTHOR(S): Hiraki, K.; Onishi, M.; Sugino, K.

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, Japan

SOURCE: Journal of Organometallic Chemistry (1979), 171(3),

C50-C52

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal LANGUAGE: English

GI

AB Treating dipalladium complex I with bis(1,3-diphenyl-2-imidazolidinylidene) gave 46.2% chloro-bridged carbene complex II (R = C1) having a cyclopalladated chelate structure involving a Pd-carbene and a Pd-aryl bond. Reactions with II (R = C1) gave II (R = Br, OAc) and III (R1 = C1, R2 = 4-methylpyridine; R1R2 = acetylacetonato).

TT 70882-99-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and reactions of)

RN 70882-99-4 CAPLUS

CN Palladium, di- μ -chlorobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

IT 70883-00-0P 70883-01-1P 70883-02-2P 70883-03-3P 70883-04-4P

RN 70883-00-0 CAPLUS

CN Palladium, (2,4-pentanedionato-0,0')[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]-, (SP-4-3)- (9CI) (CA INDEX NAME)

RN 70883-01-1 CAPLUS

CN Palladium, chloro(4-methylpyridine)[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]- (9CI) (CA INDEX NAME)

RN 70883-02-2 CAPLUS

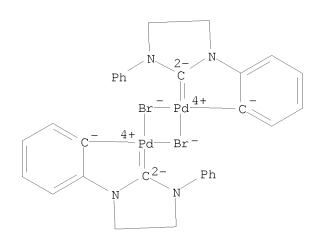
CN Palladium, chloro[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)][tris(1-methylethyl) phosphite-P]-, (SP-4-4)- (9CI) (CA INDEX NAME)

RN 70883-03-3 CAPLUS

CN Palladium, bis[μ -[acetato-0:0']bis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)

RN 70883-04-4 CAPLUS

CN Palladium, di- μ -bromobis[1,2-phenylene(3-phenyl-1-imidazolidinyl-2-ylidene)]di- (9CI) (CA INDEX NAME)



L4 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:517948 CAPLUS

DOCUMENT NUMBER: 87:117948

ORIGINAL REFERENCE NO.: 87:18737a,18740a

TITLE: Spontaneous N-aryl (rather than P-aryl)

orthometalation in the

dichlorotris(triphenylphosphine)ruthenium-bi-1,3-di-p-tolylimidazolidinylidene system; x-ray crystal and molecular structure of a stereochemically rigid 5-coordinate RuII complex, with a short (2.2 Å)

Ru....H contact

AUTHOR(S): Hitchcock, Peter B.; Lappert, Michael F.; Pye, Peter

L.

CORPORATE SOURCE: Sch. Mol. Sci., Univ. Sussex, Brighton, UK SOURCE: Journal of the Chemical Society, Chemical

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Communications (1977), (7), 196-8 CODEN: JCCCAT; ISSN: 0022-4936 Journal

DOCUMENT TYPE: LANGUAGE:

English

GΙ

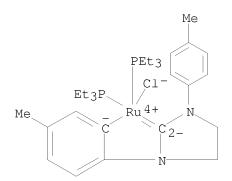
AB [RuCl2(PPh3)3] with bi-1,3-di-p-tolylimidazolidinylidene in xylene at 140° gave the complex I (R = Ph). The reaction involves carbene-metal formation accompanied by ortho metalation. I (R = Ph) with PEt3 gave I (R = Et). X-ray crystallog. anal. of I (R = Et) showed that Ru-Ccarbene [1.908(5) Å] is significantly shorter than Ru-Caryl [1.994(5) Å]. I (R = Et) is stereochem. rigid probably because of the close Ru.tplbond.H contact.

IT 64055-31-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 64055-31-8 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triethylphosphine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT 64055-27-2P 64055-28-3P 64055-29-4P

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64055-30-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 64055-27-2 CAPLUS

CN Ruthenium, chloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)-, (SP-5-43)- (9CI) (CAINDEX NAME)

RN 64055-28-3 CAPLUS

CN Ruthenium, chloro(1,3-diethyl-2-imidazolidinylidene)[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]](triphenylphosphine)- (9CI) (CA INDEX NAME)

RN 64055-29-4 CAPLUS

CN Ruthenium, carbonylchloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triphenylphosphine)- (9CI) (CA INDEX NAME)

RN 64055-30-7 CAPLUS

CN Ruthenium, carbonylchloro[(5-methyl-1,2-phenylene)[3-(4-methylphenyl)-1-imidazolidinyl-2-ylidene]]bis(triethylphosphine)- (9CI) (CA INDEX NAME)

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